DOCUMENT RESUME

ED 157 993 CE 016 267

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TITLE Relevance of Health Care Administration Curricula.
INSTITUTION Pennsylvania Univ., Philadelphia. Leonard Davis Inst. of Health Economics.
SPONS AGENCY Health Resources Administration (DHEW/PHS), Bethesda, Md. Div. of Associated Health Professions.
PUB DATE Apr 78
CONTRACT 1-MB-44192
NOTE 272p.; Parts of appendix may be marginally legible

EDRS PRICE MF-$0.83 HC-$14.05 Plus Postage.
DESCRIPTORS Administration; *Administrative Personnel; *Administrator Education; Curriculum Development; *Curriculum Evaluation; *Employment; Employment Patterns; Employment Qualifications; Employment Statistics; Geographic Distribution; Graduate Surveys; *Health Occupations; *Health Personnel; Higher Education; Masters Degrees; National Surveys; Occupational Information; Occupational Surveys; Program Attitudes; Program Evaluation; Relevance (Education)
IDENTIFIERS United States

ABSTRACT

This study sought to determine whether the curricula of master's level health administration programs in the United States are relevant to professional needs and whether these programs change appropriately as professional needs change. The content is in seven chapters. The first covers the research design and survey methodology. Chapter 2 describes the types of health care organizations for which graduates were working, employment trends, and the geographic distribution of the respondents. The third chapter explores some important characteristics of the organizations which employed most program graduates and analyzes the types of positions they held while the next chapter describes the principal on-the-job activities of the graduates in various organizational settings. Chapter 5 on curriculum relevance and emphasis relates employment patterns and on-the-job activities to master's level educational programs. It first presents the graduates' judgments as to the relevance of eighteen curriculum topic areas and then explores their perceptions of curriculum emphasis in the same eighteen areas. Chapter 6 contains alumni evaluations of master's level programs along several dimensions including overall quality and adequacy in specific skill areas. In chapter 7, the findings regarding the internal processes of program evaluation and curriculum change are presented. The final chapter summarizes and discusses the major findings. (EM)

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RELEVANCE OF HEALTH CARE ADMINISTRATION CURRICULA

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April, 1978

This report is based on work performed under Contract No. 1-MB-44192 with the Health Resources Administration, Division of Associated Health Professions, Department of Health, Education and Welfare.

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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ACKNOWLEDGMENTS

This study could not have been made without the cooperation of many hundreds of people scattered throughout the United States. More than 1,000 graduates and close to 50 program directors completed the lengthy questionnaires on which this report is based. Their time and effort are gratefully acknowledged.

Financing was provided by the Health Resources Administration, Division of Associated Health Professions, Department of Health, Education and Welfare. Special thanks go to Mr. William Holland, Project Officer, for his assistance and enthusiasm throughout the period of the project.

Mr. Robert DeVries of the W. K. Kellogg Foundation very generously offered to share the data collected by the Commission on Education for Health Administration in its earlier study of health administration programs. Dr. Charles Austin, who had been the Director of that study, was most cooperative in providing the data, and in discussing ideas for the present project.

A number of people were consulted in the early stages of the project on matters of research design and questionnaire development. Included in this group were Dr. Robert C. Jones, Robert Mittelstaedt, Jr., Gerald Katz, Mark Levitan, Janet Strauss, Dr. Anthony Kovner, Dr. Howard Newman, Dr. Arthur Bushell and Dr. Gary Filerman. Thanks also go to the many program directors who gave their time for either

personal interviews or pretests of the questionnaire.

A number of University of Pennsylvania students worked on the project at various stages. Isaac Kruger, Evelyn Major, Ellen Sue Smith and Judy Daymont helped solicit the original alumni lists and handled many details of the mail survey. The computer work was done by Richard Freeman, Bruce Cahan and John Gardner. Paul Gibler was a most persevering and conscientious assistant, doing many hand tabulations and other work in connection with processing the questionnaires.

Finally, a very special word of appreciation to Dr. Edwin Hutchins, Director of Educational Research and Development, University of Pennsylvania School of Medicine, for his expertise and for his warm encouragement and support throughout the study.

TABLE OF CONTENTS

CHAPTER I - RESEARCH DESIGN AND SURVEY METHODOLOGY 1

1. Research Design 1

Background, 1
Research Questions, 2
Survey of Recent Graduates--
Questionnaire Design, 4
Survey of Program Directors--
Questionnaire Design, 7

2. Methodology--Survey of Recent Graduates 8

Time Frame, 8
Survey Universe, 9
Survey Procedures and Response Rates, 14

3. Methodology--Survey of Program Directors 17

Survey Universe, 17
Survey Procedures and Response Rates, 19

4. Outline of Report 19

CHAPTER II - EMPLOYMENT PATTERNS 24

1. Employment Patterns by Type of Organization . . . 25

Health/Hospital Administration
Program Graduates, 29
Public Health Administration
Graduates, 31
Health Planning Graduates, 32
Graduates Not Working in Health-
Related Jobs, 33

2. Employment Trends 35

3. Geographic Distribution and Movement
of Graduates 39

Geographic Division of Employment, 39
Movement of Graduates: Division of
Training vs. Division of Employment, 44

TABLE OF CONTENTS

CHAPTER III - GENERAL CHARACTERISTICS OF EMPLOYING ORGANIZATIONS AND JOBS HELD 52

1. Characteristics of Organizations 52

Sponsorship, 52
Size and Affiliations, 55

2. Characteristics of Jobs Held 56

Line vs. Staff Position, 56
Supervisory Responsibility, 58
Administrative Level, 59
Salaries, 62

CHAPTER IV - JOB CHARACTERISTICS BY TYPE OF ORGANIZATION 65

1. Personal Medical Service Organizations 70

Short-Term Hospitals, 70
Long-Term Care Facilities, 79
Ambulatory Care Facilities, 81
Comprehensive Care Organizations, 83
Other Personal Medical Service Organizations, 85

2. Health-Related Organizations 86

Public Health Agencies, 86
Health Planning Agencies, 88
Consulting and Research, 90
Medical School, Other University, 91
Administrative or Regulatory Agencies, 92
Other Health-Related Organizations, 94

CHAPTER V - CURRICULUM EMPHASIS AND RELEVANCE 96

1. Curriculum Emphasis and Relevance 99

Relevance by Type of Educational Program, 99
Relevance by Type of Organizational Setting, 103

2. Curriculum Emphasis 112

Emphasis by Type of Educational Program, 112
Differences in Emphasis Among Individual Programs, 116

TABLE OF CONTENTS

Differences in Emphasis Associated with Length of the Residency Period, 118

3. Comparison of Relevance and Emphasis Ratings . . 123

Graduates' Ratings of Relevance and Emphasis, 124
Classroom Time versus Relevance and Emphasis Ratings, 131
Technical Appendix, Curriculum Relevance and Emphasis, 147

CHAPTER VI - EVALUATION OF PROGRAMS 153

1. General Evaluation 154

2. Preparation in Selected Knowledge/Skill Areas. . 159

Financial Management, 163
Quantitative Methods, 166
Personnel Administration and Management Theory, 167

3. The Residency 170

Evaluation of the Residency, 171
Evaluation of the Residency by Residency Length, 174
Evaluation of Programs by Residency Length, 176

4. Job Placement 178

CHAPTER VII - PROCESSES OF PROGRAM EVALUATION AND CHANGE 184

1. Review Processes 185

2. Determination of Curriculum Content 188

Sources of Input, 188
Faculty Activity, 192

3. Changes in Curricula--Past and Future 196

Past Changes, 196
Changes Planned for 1980-82, 199

TABLE OF CONTENTS

CHAPTER VIII - SUMMARY AND DISCUSSION 205

APPENDIX A - QUESTIONNAIRE TO PROGRAM GRADUATES 228

APPENDIX B - QUESTIONNAIRE TO PROGRAM DIRECTORS 239

CHAPTER I

RESEARCH DESIGN AND SURVEY METHODOLOGY

1. Research Design

Background

The first Master's Degree program in hospital administration was established at the University of Chicago in 1934. Today there are more than 70 operational programs offering graduate training in hospital and/or health administration, public health administration and health planning. The rapid expansion in health administration programs, particularly during the past ten years, has paralleled the unprecedented growth in expenditures for medical care in the United States. The health-care industry today employs over 30,000 managers in a broad array of medical institutions and health-related organizations. The size and complexity of these organizations has made the administrator's role much more important and powerful than it ever was. The public demand for better access, more accountability and greater cost control have added new pressures to the role of the administrator, while changes in medical technology, in financing patterns and in public regulation have made the job of good management ever more complex.

In view of the rapid changes which have and will continue to take place in all sectors of the health industry, the matter of education for health administration becomes an important issue. The

study described here is one of eleven in this area done for the Bureau of Health Manpower (BHM). The three major fields which they investigated were: current and future roles of the health-care administrator; adequacy of training programs; and alternatives for extending training modalities. In broad terms the Bureau was seeking to ascertain the country's present and future needs for manpower and educational programs in the health services administration field. The present study falls into the second area of investigation--adequacy of present training programs.

Research Questions

Two primary research questions were addressed in this study: 1) are program curricula relevant to professional needs, and 2) do programs change in appropriate ways as professional needs change. The programs of interest were confined to those in the continental United States that offered training in health administration and planning at the Master's level. The objectives of the study, beyond answering the primary research questions, were to provide descriptive data and analyses which would be of use to educators and manpower planners in the health administration field.

Historically, educational curricula most often develop on an ad hoc basis, growing by accretion and by the eclectic borrowing of courses from other, established disciplines. Traditional methods of curriculum design are rational and a priori in their approach. Program directors and/or faculty sit in committee and "decide" what the

requirements for a degree must be. Such decisions are often enlightened, but because of the nature of the process may result in a "saber tooth curriculum," i.e., one which is soon out of date relative to the needs of its graduates.[1] Periodic review of such programs, based on various evaluative criteria of interest, would appear essential for the successful continuation and evaluation of the education endeavor.

The criterion of major interest in this study was curriculum relevance. Relevance can, of course, be defined in numerous ways: there is no single set of generally accepted, objective criteria to be measured, nor has any rigorous method been established for investigating a question of this kind. The present study chose to take two different approaches to the relevance problem, but there is no implication that these are the only interesting or valid methodologies, nor that relevance is the only criterion by which programs can and should be reviewed.

One approach embodied in the study was to ask program graduates to give their perceptions of curriculum emphasis and relevance, the latter vis-à-vis their present jobs in the health administration field. Selection of this dictated a broad-scale survey, in order to insure representation from the wide range of health administration programs in existence throughout the United States. It also made it necessary to limit the survey to "recent" graduates, i.e., those who still had a clear recollection of the details of their educational programs.

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[1] See, for example, Harold Benjamin, Saber Tooth Curriculum: Including Other Lectures in the History of Paleolithic Education (New York: McGraw-Hill, 1939).

The second approach was to examine relevance from the program side. It was assumed that at any given point in time programs consider their curricula relevant. The major thrust of the investigation was then to determine how relevance is maintained over time in a field where demands on graduates appear to be undergoing rapid change. Since this was virtually unexplored territory, a series of preliminary interviews with program directors was undertaken to discover the major variables in the process by which curricula are evaluated and changed. The results of this exploratory survey were used to formulate an important segment of a questionnaire which was subsequently sent to all program directors. The other major segment of the questionnaire was designed to capture a detailed description of what program curricula actually look like, in order to provide summary descriptive and comparative data.

Survey of Recent Graduates--Questionnaire Design

It was hypothesized that graduates' perceptions of curriculum relevance would be affected in significant ways by their particular job settings and job responsibilities. The survey instrument was therefore designed to gather detailed information on the respondent's present job--type of organization, size, principle activities, salary, and so forth. Certain important background data which might effect employment were also obtained--age, sex, other graduate degrees and prior work experience primarily.

The above information, though essential for achieving the goals

of the research design, was also desired for its own sake. At present there is very little reliable data on employment trends among health administration graduates, and considerable uncertainty exists as to whether the needs of the market are being appropriately met. The information resulting from this survey should help to resolve some of these questions and serve to clarify the manpower planning problem. Moreover, employment trends have important implications for curriculum design and development, both with respect to the need for new and/or expanded programs and for new areas of training which might become appropriate within existing programs.

In order to ascertain graduates' perceptions of curriculum relevance and emphasis, it was necessary to have a taxonomy of topic areas which would capture the essential features of all health administration programs in a comprehensive fashion. Such a taxonomy had been developed and used by Charles Austin in an earlier study for the Kellogg Commission.[1] In that study, Austin had formulated the curriculum categories in concert with numerous program directors, program faculty, and educational consultants. The schema was pretested, modified, and then used in a comprehensive survey of health administration and planning programs. Consultations with Austin and a careful review of responses to the Kellogg Commission survey indicated the general adequacy of the taxonomy, but also the need for a few clarifying modifications. In the interest of building a valid data base

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[1]Commission on Education for Health Administration, Education for Health Administration (Ann Arbor: Health Administration Press, 1975), vol. II, chap. II.

over time, the Kellogg taxonomy was largely adopted in its entirety. Changes were kept to an essential minimum: the precise details are discussed in Chapter V--Curriculum Relevance and Emphasis. (The prior study is referred to variously throughout this report as either the Austin or the Kellogg Commission survey.)

The Kellogg Commission survey had revealed several areas in which program graduates felt inadequately prepared to cope with their on-the-job responsibilities. Since this evaluation seemed to relate directly to curriculum relevance, it was decided to investigate the matter in more detail in the present study. One section of the questionnaire (C-7) was therefore designed to elicit evaluations of specific skills preparation within those general areas which had been found weakest. It was assumed that curriculum design could be improved if more were known about the particular skills which graduates needed and felt they were lacking.

The process of curriculum change was investigated primarily through the survey of program directors. However, the exploratory survey already described had suggested that an important element in that process was input from program students and alumni. In order to validate this proposition, graduates were asked a series of questions concerning their participation in the process, both as students and alumni.

A copy of the questionnaire to program graduates can be found in Appendix A.

Survey of Program Directors--
Questionnaire Design

The major concerns addressed in the survey of program directors were 1) the specific content of the curriculum in each program, 2) the processes by which curricula were evaluated and reviewed, particularly in response to changes in professional needs, and 3) the changes which had recently been effectuated in the curriculum, and those that were being planned for the future.

A curriculum content form was designed to capture and categorize, in a standard taxonomy, the broad range of educational curricula being used in health administration and planning programs throughout the United States. Questions on individual courses, teaching faculty, classroom contact time and student composition of classes made up the bulk of the content form. Other questions were addressed to the availability of specialty tracts, to the residency or practicum, and to several other items of importance (length of academic period, semesters, etc.) so that "profiles" could be drawn up which would accurately describe the curricula of different programs in comparable terms.

The remaining parts of the questionnaire were designed to provide some insight into the processes by which programs monitor professional needs, assess curricula with respect to meeting those needs, and, if necessary, change curricula in ways which respond to the new conditions. Such processes are, of course, extremely complex. Time and resource limitations of the study were such that only a few of the important elements in the process could be investigated. Attention was

focused primarily, but not exclusively, on review procedures, i.e., group activities consciously directed at evaluation in accordance with some set (implicit or explicit) of evaluative criteria. Questions were asked, for example, about the occurrence and frequency of various kinds of review, about the participants, and about the impact of the reviews on curriculum. This approach served at least to provide some base-line descriptive data in a virtually unexplored but important area. It did not, however, provide any basis on which to make inferences with respect to the effectiveness of the different processes.

It was recognized that the investigation of the evaluation/change process would not be sufficient, in itself, to account for and describe the changes that individual programs had made or were contemplating for the future. A section of the questionnaire was, therefore, designed to document those changes--regardless of the operative process by which the decision to change had been made. This provided a further basis on which to compare programs for similarities and differences, and an opportunity to test program perceptions of appropriate curriculum modifications with those of their own graduates who were, by and large, practitioners in the professional field.

A copy of the questionnaire to program directors can be found in Appendix B.

2. Methodology--Survey of Recent Graduates

Time Frame

The time frame for the survey of program graduates was determined by two considerations: the desire to build a data base which

would cover the maximum possible period of time (to permit trend analysis), and the recognition that memories are limited. To insure the reliability of the retrospective data required by the study, the elapsed time since graduation was limited to five years or less. As the survey was scheduled for the spring and summer of 1977, this limited the universe to those who had graduated in or after 1972.[1] The contract budget permitted a survey of graduates from two different years. The year 1972 was selected as it was the earliest point in time for which valid data could be obtained. Initially, 1975 was selected for the second survey year but it proved impossible to locate a sufficient number of graduates for that period. Either programs were slow in putting their alumni lists in order, or alumni were slow in informing programs as to their whereabouts. In any case, few complete mailing lists were available at the time of solicitation. Lists were obtainable for 1974, however, so it was used for the second survey year. This had the advantage of showing graduates somewhat later in their professional careers (three rather than two years out) but reduced the desired time period between classes to two years, making trend analysis less feasible.

Survey Universe

The universe of Master's level programs to be covered in the study was defined to correspond closely with the group of programs included in the Kellogg Commission survey which had been conducted in

[1]The Kellogg Commission had surveyed 1971 graduates two years after graduation, i.e., in 1973.

1973. This was consonant with the desire to build a longitudinal data base for educational and manpower planning purposes. The Kellogg Commission (Austin) study encompassed three distinguishable groups of Master's level programs in the broadly defined field of health administration: those programs aimed primarily at preparation for hospital administration, those geared toward public health administration, and a small group of independent programs in comprehensive health planning.

Austin's final report to the Kellogg Commission did not, by and large, seek to separately analyze the data from these three groups. Instead, for most purposes at least, they were considered as a whole. The Commission very graciously made these data available to the author of the present study during its initial design phase. A series of special tabulations suggested that it would be valuable to keep the groups separate and test for meaningful differences as well as similarities: if no significant differences were found, the data could easily be combined. As will be seen, important differences did emerge and they are discussed in the appropriate sections of the report which follows.

Hospital/Health Administration Programs. The Austin survey for the Kellogg Commission had covered both the United States and Canada. The present study was confined to programs located in the continental United States so that Hawaii, Puerto Rico, and five Canadian programs were thereby eliminated from the survey universe. For various reasons, primarily related to the availability of accurate alumni mailing lists,

it was not possible to exactly duplicate the set of hospital/health administration programs located in the continental United States which had been included in the Kellogg survey. Austin had covered 30 such programs which, as a group, had produced approximately 560 graduates in 1971. All thirty programs were members, or associate members, of the Association of University Programs in Health Administration (AUPHA).[1]

The present study surveyed thirty programs, all but one also associated with AUPHA, but not precisely the same group.[2] Twenty-four programs were identical, but six programs which Austin had not covered were included in the present study, while six which Austin had included were omitted. The number of programs covered were thus exactly the same (30), though of somewhat different composition. The numbers of graduates associated with the programs included in the present study exceeded those in the Kellogg survey, largely reflecting growth in average class size during the period covered: there were 603 and 740 graduates for 1972 and 1974 respectively.

The thirty programs were located in a variety of educational settings--schools of public health, business, allied health and several others. They ranged in size from graduating classes of less than ten to more than one hundred. Geographically they spread, albeit unevenly,

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[1]Formerly known as the Association . . . in Hospital Administration.

[2]All but one of the eligible AUPHA member programs were included in the survey.

from coast to coast: every one of the nine United States census divisions contained one or more of the hospital/health administration programs.

Public Health Administration Programs. The programs included in this group were those traditionally termed public health administration. Actual titling was far from uniform, however: health services administration, health administration and several other designations were also in fairly common use. These programs were uniformly located in schools of public health, schools which frequently had a program in hospital/health administration as well.[1] Although located within the same institutions, the two types of programs were generally separate educational endeavors, with different purposes, curricula and student bodies. In the schools where this occurred, both types of programs were independently surveyed, and the responses were classified in the appropriate category--hospital administration or public health administration.

It was not clear from the Kellogg Commission report, as published, nor from the special data made available to this writer, precisely which--or how many--schools of public health had actually been included in the Austin survey. More importantly, the number of graduates covered--213--was considerably smaller than the number of hospital/health administration graduates that had been surveyed (580). To achieve statistical reliability for this group it was considered

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[1]Eleven of the sixteen schools of public health in the continental United States had both types of programs.

necessary to survey all sixteen operational schools of public health in the continental United States, without regard to the programs covered in the earlier study. Accordingly, all schools of public health were solicited for the names and current addresses of their 1972 and 1974 public health administration graduates. (Graduates of other programs or departments--environmental health, epidemiology, nutrition, population planning, etc.--were not included in the survey universe.) Twelve of the sixteen schools responded with alumni lists. One other school replied that it had no program of the type sought, while the remaining three schools either did not have mailing lists available or simply did not respond. The adjusted response rate among eligible programs was thus twelve out of fifteen, or eighty percent. The lists which were obtained yielded useable names and addresses for 304 public health administration graduates in 1972, and 370 in 1974.

Comprehensive Health Planning. As for the third group, independent programs in comprehensive health planning, the period 1972-76 produced many changes. Austin had located seven programs of this type in 1972. By 1975/6, inquiries revealed that all but one of the health planning programs had been terminated or absorbed into other university departments. It was not possible to obtain alumni lists for the desired years from more than the one remaining independent program and one other which had merged, but kept its original records intact. This group thus constitutes an extremely small portion of the total survey universe. It is retained as a separate entity in parts of the

report because there is considerable interest in education for health planning at the present time, but some of the study findings with regard to this group, considered independently, are of limited statistical reliability due to the small numbers in the sample.

For purposes of clarity and brevity, the three groups of programs are referred to as hospital/health administration (HA), public health administration (PHA) and health planning (CHP), respectively, throughout the discussion which follows. When all programs are being examined collectively, they are referred to under the name health or health care administration. This terminology no doubt serves to emphasize the differences between the groups as opposed to the similarities, and clearly fails to capture the diversity of program titles actually involved, particularly among the PHA group. It may not satisfactorily reflect the intent of changes recently made among programs in the first group where "health administration" has almost universally displaced "hospital administration" in the titles and occupational purviews of its component programs. The titles chosen are believed to convey the important characteristics of the three groups for the purposes of this study, but their inadequacies are readily acknowledged.

Survey Procedures and Response Rates

To recapitulate briefly, mailing lists were obtained for thirty programs in hospital/health administration, twelve programs in public health administration, and two programs in comprehensive health planning. The lists yielded a total of 2,065 usable names and addresses,

divided among the above groups as follows: HA--1,348; PHA--670; CHP--52. Approximately twenty overseas addresses were eliminated, primarily from the PHA lists. In March, 1977, each graduate was sent a questionnaire. There were two follow-up mailings--a post card and a second questionnaire--at two-week intervals. The post office returned 246 questionnaires (12 percent) as undeliverable, although the actual number of undelivered questionnaires was larger. (See telephone survey discussed below.) Data on the mailing and the response rates are presented in Table I-1.

The gross response rate for the entire mailing, including the undeliverables, was 57 percent. Adjustment of the figures to reflect the number of questionnaires known to be undeliverable gave an overall response rate of 65 percent. Return rates from graduates of hospital/health administration programs were the highest among the three component groups in the survey. This was due in part to the greater accuracy of their mailing lists. Only 8 percent of the questionnaires to the hospital/health administration graduates were returned as undeliverable, compared with 18-19 percent of those to public health administration and health planning graduates. However, even when the figures were adjusted to reflect these differences, the response rate for the public health administration group--56 percent--was lower than the rate for the two others (69 percent).

Response rates for 1974 graduates were generally higher than for 1972 graduates. However, the adjusted rates for the HA and PHA groups reflect differentials of only 2-4 percent. The CHP group was

Table I-1

RESPONSE RATE TO SURVEY OF GRADUATES, BY TYPE OF PROGRAM AND YEAR OF GRADUATION

	All Graduates (44 Programs)	Hospital/Health Administration Graduates (30 Programs)	Public Health Administration Graduates (12 Programs)	Comprehensive Health Planning Graduates (2 Programs)
Questionnaires Mailed	2,065	1,343	670	52
1972 Graduates	929	603	302	24
1974 Graduates	1,136	740	368	28
Returned as Undeliverable	246	113	123	10
1972 Graduates	114	40	67	7
1974 Graduates	132	73	56	3
Completed Responses	1,183	850	304	29
1972 Graduates	518	382	125	11
1974 Graduates	665	468	179	18
Gross Response Rates (%)	57.3	63.3	45.4	55.8
1972 Graduates	55.8	63.3	41.4	45.8
1974 Graduates	58.5	63.2	48.6	64.3
Adjusted Response Rates[1] (%)	65.0	69.1	55.6	69.0
1972 Graduates	63.6	67.9	53.2	64.7
1974 Graduates	66.2	70.2	57.4	72.0

[1]Universe reduced by the number of known undeliverable questionnaires.

very small--too small to permit any analysis by year of graduation. The data are presented here for general information purposes only.

When the period for receiving responses was closed, a 10 percent random sample of nonrespondents was surveyed by telephone. Approximately half of those in the sample were no longer located at their listed addresses, implying they probably did not receive the questionnaire. The sample results suggest that as many as 318 (one half) of the nonrespondents may not have gotten the questionnaire. The response rate among those who did receive questionnaires was thus actually higher than indicated--perhaps as high as 80 percent. For those who got the questionnaire but failed to respond, no significant differences from respondents were discovered.

After the survey period was closed, an additional twenty-one completed questionnaires were received. Unfortunately, they were too late for inclusion in the present paper.

3. Methodology--Survey of Program Directors

Survey Universe

The universe of programs included in the survey of program directors was identical with that just described for the survey of recent graduates, (see Section 2), but it covered a few other programs as well. Since one of the objectives of the research design was to provide comparisons of responses between graduates and directors of the same programs, the universe had to be identical to the greatest possible degree. However, there were other objectives--to provide

baseline data and "profiles" of individual programs for presentation and comparison among themselves--which were quite independent of the graduate survey universe. It was therefore possible to extend the program director's survey to include some of the new programs which had come into existence since 1971, the effective cut-off date for the graduate survey.

The universe of hospital/health administration programs for the survey of program directors consisted of all but one of the thirty-two programs included in the graduate survey universe, plus fourteen additional programs, many of which had produced their first graduating classes after 1972.[1] The universe of public health administration programs was identical with that used for the survey of recent graduates. It consisted of all but one of the sixteen schools of public health located in the continental United States. The one school could not be included because it had no program in (or analogous to) public health administration. For that reason, it had not been included in the survey of graduates either. No new schools of public health had become fully operational between 1972 and 1977, although one was in the process of being established.

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[1]One program, contacted initially for its alumni lists, was not willing to participate in any aspect of the study. All of the fourteen additional programs were, by 1977, affiliated with AUPHA as associate or member programs. The survey was not intended to be completely exhaustive, and no attempt was made to discover other programs in hospital/health administration which may have been initiated during the 1972-1977 period.

It should perhaps be reiterated here that schools of public health often (in eleven out of fifteen cases) had both a hospital/health administration program and a public health administration program. In such instances, both programs were included in the study in the appropriate category.

Survey Procedures and Response Rates

The survey instrument developed for program directors was reviewed by four potential recipients to be sure it was as clear and precise as possible, but also to determine whether the data requested could be supplied without placing an undue or impossible burden on respondents. Of particular concern were several questions which asked for historical information on the numbers and sex of students, and the number and turnover rate of faculty, so that trends over the past five years could be developed. The program directors who served as the review group thought that they could probably complete the questionnaire--after a few minor revisions for purposes of clarity--within a reasonable period of time. (They had been asked to review it as if they were filling it out; they did not have to actually provide any data.) However, the group was not sure that all programs would have the necessary records, manpower or time available. In view of their reservations, it was decided to conduct a test mailing first, and on the basis of the response rate, determine whether or not the survey instrument would have to be revised.

The questionnaire was mailed to the test group--twenty programs--

in June of 1977. Follow-up mailings were made throughout the summer but by September 1 the response rate had reached only 30 percent. Telephone calls to nonrespondents indicated that they simply did not have the time to fill out yet another questionnaire, particularly one which was rather lengthy and demanded historical data. It was clear that the response rate would not improve unless the questionnaire was shortened and the historical data requirements greatly reduced.

Accordingly, the survey instrument was revised. Virtually all questions asking for historical data were eliminated, and several rather lengthy questions were abbreviated. The final version represented the irreducible minimum necessary to realize the essential purposes of the survey. The questions which were retained were, for the most part, consistent with the earlier test survey, making it possible to use both sets of responses.

The revised version of the questionnaire was sent out to all program directors (except those who had responded to the test mailing) in mid-September, 1977. By the close of the survey period (January, 1978), after follow-up letters and numerous phone calls, a total of 36 responses had been received from the 59 program directors, including the test group. In the hospital/health administration category, 27 out of 44 (61 percent) responded: for the public health administration group the analogous figures were 9 out of 15 (60 percent). An additional 4 program directors wrote to say they did not have either the time, or the inclination, to respond: the remaining 19 simple failed to reply at all.

As will be seen in the discussion sections which follow, the response rates to individual sections of the survey instrument varied widely. The lowest rates were associated with the Curriculum Content Forms, where individual respondents either skipped whole sections, or failed to complete important segments of a section. By and large, when this occurred, the partial information could not be utilized. This problem was particularly severe among public health administration programs. The consequent problems of statistical reliability are discussed in the appropriate chapters. (The Curriculum Content Forms are covered in Chapter V--Curriculum Emphasis and Relevance.)

4. Outline of Report

The report which follows is organized to respond directly to the primary research questions outlined in Section 1 of this chapter. Chapters II, III and IV, which follow immediately, all relate to graduates and their employment setting. Chapter II describes in detail the types of health care organizations for which graduates were working at the time of the survey, puts these data together with other studies for an analysis of employment trends and, in addition, portrays the geographic distribution of respondents as well as their movement among regions. Chapter III explores some important characteristics of the organizations which employed most program graduates, and analyzes the types of positions graduates held in these organizations with respect to line/staff duties, supervisory responsibilities, administrative levels and salaries. Chapter IV deals with the same data from a

different point of view and also describes the principal on-the-job activities of graduates in the various organizational settings.

Chapter V--Curriculum Relevance and Emphasis, is the key chapter relating employment patterns and on-the-job activities to Master's level educational programs. First, graduates' judgments as to the relevance of 18 different curriculum topic areas, both in general and vis-à-vis specific positions held, are presented. Then graduates' perceptions of curriculum emphasis in the same 18 topic areas are explored for both hospital/health administration and public health administration programs. The section also considers some of the other factors affecting curriculum content and emphasis, primarily the availability of specialty or concentration areas and the length of the residency period. Section 3 compares relevance and emphasis ratings, offering an analysis of those topic areas which were appropriately matched, and those where significant discrepancies appeared. The relevance ratings are also compared with actual current curricula as described by a sample of program directors, primarily those in hospital/health administration.

Chapter VI contains evaluations of Master's level programs, as seen by their alumni, along several different dimensions. Overall quality, areas of greatest curriculum strength and weakness, and adequacy in several specific skill areas are the major evaluations offered. Residency length, and its influence on program evaluation, is also discussed. Along another dimension entirely, the experience of graduates with regard to their first job placement is examined as

a further criterion of program success.

Chapter VII presents the findings of the study with regard to the internal processes of program evaluation and change, focussing on the problem of how curricula are kept responsive to changing professional needs. Various types of review processes, and the participants in those processes, are examined for their impact on curriculum design and modification. Actual or anticipated changes in curriculum emphasis are chronicled for the recent past and the immediate future, and a comparison with alumni opinions on future needs is given.

The final chapter briefly summarizes and discusses the major findings of the study.

CHAPTER II

EMPLOYMENT PATTERNS

This chapter describes in detail employment patterns among recent graduates of Master's level programs in health/hospital administration, public health administration and health planning. Employment patterns were defined in terms of the type of organization--short-term hospital, long-term care facility, public health agency, etc.--in which graduates were working at the time of the survey (Summer 1977). The data were analyzed for all respondents and for graduates of each of the three different types of educational programs. The discussion also covers the significant differences which were found between the two graduate classes surveyed (the classes of 1972 and 1974), and between the male and female segments of that universe.

Included in the first section is a description of the distribution of graduates among the various types of health care organizations and a discussion of respondents who were found to have left the health field, either permanently or temporarily, since graduating from their Master's level program. The second section is concerned with employment trends among program graduates insofar as any can be discerned from this study considered in conjunction with prior surveys. The third and final section offers summary data on the geographic distribution of the graduates among the

various divisions of the United States, including a comparison with the distribution of the population at large. An index of graduate mobility and/or the size of local markets is provided by an analysis of the numbers of graduates who stayed or left the region in which they received their Master's level training. A "regional trade" model, including figures on the balance of trade (exchange of graduates) among regions is presented to portray the complex regional interactions.

1. Employment Patterns by Type of Organization

Graduates were asked to check the type of organization in which they were currently employed from a list of thirteen different types of organizations. The thirteen organizations were grouped into two large categories, defined in functional terms. The first was made up of those organizations which deliver some type of personal medical care--hospitals, clinics, mental health facilities, etc. The second category consisted of institutions and agencies that serve other kinds of non-personal but health related needs such as regulatory agencies, planning agencies, etc. Public health agencies were included in the latter category on the basis of their primary goals and functions, but it is recognized that their activities occasionally involve the delivery of personal medical services as well.

Tables II-1 and II-2 provide a complete picture of where the various graduates were working at the time of the survey. The first table gives numerical data, the second gives essentially the same information in percentage terms. Of all 1,104 respondents who

TABLE II-1

EMPLOYMENT BY TYPE OF ORGANIZATION, 1977: NUMBER OF RESPONDENTS BY EDUCATIONAL PROGRAM AND YEAR OF GRADUATION[1]

Type of Organization	All Respondents			Health/Hospital Administration			Public Health Administration			Health Planning
	Total	1972 Grads	1974 Grads	Total	1972 Grads	1974 Grads	Total	1972 Grads	1974 Grads	Total
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Grand Total	1,175	512	655	850	380	464	296[2]	121	173	29
Not Working in Health	71[2]	29	42	28	11	17	37[2]	13	24	6
Working in Health	1,104	483	613	822	369	447	259	108	149	23
Personal Medical Services	727	322	400	645	291	350	75	29	45	7
1) Short-term hospital-gen'l	562	253	305	533	244	285	26	9	17	3
2) Short-term hospital-special	36	13	23	30	12	18	6	1	5	-
3) Long-term facility	16	7	9	14	6	8	2	1	1	-
4) Ambulatory center	36	12	24	23	8	15	13	4	9	-
5) Comprehensive care (HMO)	32	14	18	18	8	10	11	5	6	3
6) Other personal services	45	23	21	27	13	14	17	9	7	1
Health Related Organizations	377	161	213	177	78	97	184	79	104	16
7) Public health agency	72	34	38	16	8	8	55	26	29	1
8) Health planning agency	38	19	19	21	11	10	10	5	5	7
9) Consulting or research	59	19	38	44	13	29	12	6	6	3
10) Medical school, university	75	30	45	26	13	13	48	17	31	1
11) Voluntary health agency	7	1	5	2	1	1	5	-	4	0
12) Administrative agency	42	16	26	24	10	14	17	6	11	1
13) Other health related	84	42	42	44	22	22	37	19	18	3

[1]Sub-group totals may exceed the sum of the figures indicated for 1972 and 1974 graduates. In eight cases it was not possible to identify the year of graduation but the type of organization was known so these respondents appear only in the "total" columns.

[2]Adjusted for error in single school. See explanation on page 33.

TABLE II-2

EMPLOYMENT BY TYPE OF ORGANIZATION, 1977: PERCENTAGE OF RESPONDENTS BY EDUCATIONAL PROGRAM AND YEAR OF GRADUATION[1]

Type of Organization	All Respondents			Health/Hospital Administration			Public Health Administration			Health Planning
	Total	1972 Grads	1974 Grads	Total	1972 Grads	1974 Grads	Total	1972 Grads	1974 Grads	Total
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
A. Personal Medical Services	65.9	66.7	65.3	78.5	78.9	78.3	29.0	26.8	30.2	30.4
1) S-T hospital-general	50.9	52.4	49.8	64.8	66.1	63.8	10.0	8.3	11.4	13.0
2) S-T hospital-special	3.3	2.7	3.8	3.7	3.3	4.0	2.3	.9	3.4	-
3) Long-term facility	1.4	1.4	1.5	1.7	1.6	1.8	.8	.9	.7	-
4) Ambulatory center	3.3	2.5	3.9	2.8	2.2	3.4	5.0	3.7	6.0	-
5) Comprehensive care (HMO)	2.9	2.9	2.9	2.2	2.2	2.2	4.2	4.7	4.0	13.0
6) Other personal service	4.1	4.8	3.4	3.3	3.5	3.1	6.7	8.3	4.7	4.4
B. Health Related Organizations	34.1	33.3	34.7	21.5	21.1	21.7	71.0	73.2	69.8	69.6
7) Public health agency	6.6	7.1	6.2	1.9	2.2	1.8	21.2	24.1	19.5	4.4
8) Health planning agency	3.4	3.9	3.1	2.6	3.0	2.2	3.9	4.6	3.4	30.4
9) Consulting or research	5.3	3.9	6.2	5.3	3.5	6.5	4.6	5.6	4.0	13.0
10) Medical school, university	6.8	6.2	7.3	3.2	3.5	2.9	18.5	15.7	20.8	4.4
11) Volunteer health agency	.6	.2	.8	.2	.3	.2	1.9	-	2.7	-
12) Administrative agency	3.8	3.3	4.2	2.9	2.7	3.2	6.6	5.6	7.4	4.4
13) Other health related	7.6	8.7	6.9	5.4	5.9	4.9	14.3	17.6	12.0	13.0
Total Working in Health	1,104	483	613	822	369	447	259	108	149	23

[1]Sub-group totals may exceed the sum of the figures indicated for 1972 and 1974 graduates. In eight cases it was not possible to identify the year of graduation but the type of organization was known so these respondents appear only in the "total" columns.

were working in a health-related organization, one-half were located in short-term general hospitals, and another 3 percent in short-term special hospitals. The remaining 506 respondents were distributed among the other types of health care organizations and agencies in relatively small numbers, in no case exceeding 7 percent.[1] The second largest category was medical school/university at 6.8 percent (75 respondents).

A comparison of employment patterns of 1972 graduates with graduates of 1974 (columns 2 and 3) reveals only small differences, none of them statistically significant. The differences which do exist, for example the 2 percent drop in employment in short-term general hospitals, could be the indicators of some trends but within the confines of this survey, random sampling error must be accepted as the explanation for the variation between years.

Employment patterns were also examined to see whether there were any significant differences by sex. There were 76 females among the 483 respondents in the class of 1972 (16 percent) and 109 (18 percent) among the 613 for 1974. The appropriate t-tests revealed significant differences between men and women for the 1974 graduate group, but not for those who had graduated in 1972. A more detailed analysis showed that the important differences were confined to the hospital/health administration graduate group, and the findings are discussed under that heading below.

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[1]For a description of the types of organizations which fell into categories 6) Other Personal Services and 13) Other Health Related, see the section on principle job activities (scenarios).

Examination of employment patterns in terms of the two summary categories, Personal Medical Service Organizations and Health Related Institutions, was also interesting. Almost two-thirds of the survey respondents worked in organizations providing personal medical services, with only one-third in health related organizations. The stability in the proportion of 1972 and 1974 graduates working in the two different sectors was quite notable.

Health/Hospital Administration Program Graduates

Graduates of health/hospital administration programs were employed predominantly in short-term hospitals. Among all 822 respondents, 68.5 percent were working in either short-term general (64.8 percent) or short-term special (3.7 percent) hospitals at the time of the survey. The overwhelming importance of hospital employment was true for graduates of both 1972 and 1974. Although the figure for the former year (69.4 percent) was slightly larger than the latter (67.8 percent), the difference was not statistically significant. No other type of organization accounted for more than 5 percent of graduates in either 1972 or 1974. As Table II-2 indicates, the 259 graduates not employed in hospitals were distributed fairly evenly among the remaining organizational types: long-term care facilities--2 percent; ambulatory care centers--3 percent; comprehensive care organizations--2 percent; public health agencies--2 percent; health planning agencies--3 percent, etc. The only type of organization employing 5 percent or more of the survey respondents were consulting and research organizations, and they achieved this importance only

among 1974 graduates: for that year 6.5 percent were thus employed, compared with only 3.5 percent of the 1972 graduates. No other type of organization showed significant change between 1972 and 1974; all continued to absorb graduates at approximately the same (low) rates.

Almost eighty percent of HA graduates were working in personal medical service organizations, compared with just over 20 percent in health-related institutions and agencies. A comparison of patterns between the two different graduating classes showed great stability in this regard.

There were some interesting differences within the HA group which warrant comment here. First, sex was found to have a significant association with employment patterns for the class of 1974, although not for the class of 1972. The difference between men and women was most apparent with regard to hospital employment. Sixty-nine percent of the men, but only 52 percent of the women from the class of 1974 were working in short-term hospitals (general or special) at the time of the survey. Women were located with higher frequency than men in medical schools and/or other university institutions, administrative and/or regulatory agencies and four other settings.[1] In no case, however, did their proportions exceed those for men by more than 6 percent, and in the majority of cases the difference was confined to 3 percentage points. In other words, women did not cluster into any other single type of organization to any significant extent.

Second, an examination of employment patterns among graduates of individual programs revealed a few significant differences. All

[1]Comprehensive care organizations, public health agencies, voluntary agencies and "other" health related organizations.

programs did not "produce" the same proportion of hospital administrators. Out of 29 programs, 14 had more than 70 percent of their graduates in hospitals, but 11 had between 50 and 70 percent while 4 had fewer than 50 percent. Later sections of this report examine some possible explanations for these differences since they may be of considerable importance for future manpower planning.

Public Health Administration Graduates

Employment patterns among graduates of public health administration programs contrast sharply with those just described for the HA group. Taking all public health administration (PHA) respondents together, only 29 percent were located in personal health care organizations at the time of the survey, while 71 percent were working in other types of health related organizations. This was almost an exact reversal of the distribution found among hospital/health administration graduates.

The data for the PHA group reveal a much broader array of important organizational settings than were to be found among HA graduates. No single type of organization played the dominating role of the hospital. Indeed, no single organizational setting accounted for more than 22 percent of PHA graduates. The most popular location was public health agencies, which employed 21 percent of all graduates. Medical schools and "other" university accounted for 19 percent, short-term hospitals employed 12 percent, and all other types of organizations accounted for between 1 and 7 percent of the other respondents. The employment patterns of 1974 graduates did not differ

significantly from those who graduated in 1972, although they appear somewhat less stable than those described for the analogous HA groups.

It should, perhaps, be reiterated here that the PHA graduates selected for the survey do not represent all graduates of schools of public health but only those in public health administration (or equivalent) programs/departments.

Health Planning Graduates

The figures on Tables II-1 and 2, column 10, relate to the only two independent comprehensive health-planning programs (CHP) from which alumni lists could be obtained at the time of the survey. The group was thus very small. To maximize the sample size for purposes of data analysis, the class of 1972 was grouped with that of 1974. Even then, the data must be interpreted as indicative, rather than definitive.

At the time of the survey, 7 (30 percent) of the 23 CHP graduates working in health were employed by health-planning agencies of one type or another.[1] Hospitals, comprehensive care organizations, consulting/research firms, and "other health-related organizations" each accounted for an additional 13 percent (2 people). The relatively small proportion of graduates working in health-planning agencies does not, however, necessarily indicate the number of health-planning practitioners. Hospitals, HMOs, consulting firms, governmental agencies and other types of organizations often engage in activities

[1]Six of the 29 health-planning respondents reported that they were not working in a health-related job or organization.

which appropriately utilize the services of health planners.

Graduates Not Working in Health-Related Jobs

Questionnaire recipients were asked to respond to the survey even though they were not currently working in a health-related job. Where this occurred, respondents completed only the first page of the questionnaire, i.e., questions 1-8 giving background information. The number of returns falling into this category does not accurately reflect the total number of graduates who have left the field (either temporarily or permanently). The true number is probably higher since it can reasonably be assumed that addresses for this group were less accurate (so questionnaires were not received), and that recipients had fewer incentives to answer. However, on an a priori basis there is no reason to assume any differential in the return rate among the hospital/health administration, public health administration, and health-planning groups, so the comparative percentages should have some reliability.

In toto, 79 responses out of 1,183 were received from graduates who were not working, either full- or part-time, in a health-related job or organization. Out of 850 responses from hospital/health administration graduates, 28 (3 percent) fell in this category. Among the public health administration group, the rate was higher--43 out of 304 returns. However, 15 of the 43 originated within a single large school which was unable to distinguish its public health administration graduates from graduates of other departments. No other school had more than 5 respondents in this category. Adjustment for this situation, reflected in line 2 of Table II-1, yields a more accurate

estimate of the "not working in health" PHA group at 71 (12-13 percent). Among the small group of health planners, 6 of the 29 respondents or approximately 20 percent reported that they were not working in a health-related job at the time of the survey.

Forty percent of the 79 "not in health" respondents were employed, but not in a health-related job. One-third were pursuing further graduate study full time, and 16 percent were looking for work. The remaining 10 percent said they were not interested in working at the present time.

The average age for the respondents not in health was 31, with the hospital/health administration and planning groups somewhat younger than the PHA group (29 and 32 years of age respectively).

Sex was not a significant variable for the hospital/health administration group. Four of the 28 "not in health" respondents (14 percent) in this group were female, not significantly higher than their representation in the universe (10 percent). Among public health administration respondents, however, sex was of some significance. There were more females in the "not working in health" category than in the population at large (65 and 40 percent respectively). Approximately one-half of the females (10-13 women) were pursuing further graduate study, while the others were looking for work (30 percent), or not interested in working (15-20 percent).

A final note of interest with regard to graduates who were not

working in health relates to other professional degrees held by program graduates. All respondents with M.D. degrees (37) were in a health-related job at the time of the survey, while 3 of the 7 graduates who also had law degrees were not working in the health field.

2. Employment Trends

While there were slight differences in employment patterns among Master's level graduates for 1972 and 1974, the differences were not statistically significant. Thus no trends from these data were apparent. However, consideration of the data in conjunction with data from other studies makes some limited trend analysis possible.

There were a number of prior investigations of employment opportunities and placements for graduates of Master's level programs affiliated with the Association of University programs in Hospital (now Health) Administration (AUPHA). The study groups were roughly (though not precisely) comparable with the hospital/health administration group investigated for the present study. The findings of these reports were briefly summarized in an earlier article by this writer[1] as follows:

> In years past, hospitals absorbed most of the graduates from hospital administration programs. The Olsen report[a] (1954) found that 76 percent of all program graduates from 1934 through 1953 had remained in hospital work, while 24 percent had gone into "peripheral" fields--governmental agencies, voluntary agencies, and so forth. A similar distribution was found in 1968 when Chester[b] estimated that about 75 percent of the 5,466 alumni of all programs were in management positions in hospitals and related institutions, while 20 percent occupied positions in

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[1] S. Moyerman, "Supply and Demand for Health Care Graduates" in Hospital Administration, Fall 1975, pp. 62-72.

government departments and agencies, voluntary planning groups and prepayment organizations. The remainder were thought to be in new areas such as regional medical programs, comprehensive health planning, Medicare, etc.

Results of the recent Dixon (Kellogg) Report[c] indicate that 63 percent of the 1971 graduates of 31 AUPHA member programs were working in hospitals in 1973. Comparable results were found by Sheinwold[d] in a study of 1973 and 1974 program graduates; 65 percent of the employed respondents had secured their first jobs in hospitals.

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[a]Commission on University Education in Hospital Administration, University Education for Administration in Hospitals: A Report of the Commission on University Education in Hospital Administration (Washington, D.C.: American Council on Education, 1954).

[b]Theodore E. Chester, Graduate Education for Hospital Administration in the United States: Trends (Chicago: American College of Hospital Administration, 1969).

[c]Commission on Education for Health Administration, Education for Health Administration, Vols. I and II (Ann Arbor, MI: Health Administration Press, 1975). The Commission was chaired by James P. Dixon, President of Antioch College.

[d]Marcy D. Sheinwold, "Recent Female Health Administration Graduates: A Comparative Study of Their Employment Experience and the Experience of Their Male Counterparts," mimeographed, 1975.

In 1975, Quatrano and Clary[1] conducted another study of those who had graduated from AUPHA-affiliated programs during the period 1970-74. Tables in the article indicate that approximately 59 percent of the entire group were employed in hospitals as of 1975, but a close examination of the data reveals a serious error in the calculations. A more accurate estimate, based on a recomputation of the data, would be

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[1]"Oversupply of Health Administrators: True or False?" in Hospital Progress, April 1977, pp. 88-92.

66 percent.

Findings in the present study indicate that 65 percent of 1972 and 1974 graduates of approximately the same group of programs were employed in short-term general hospitals as of 1977. Although a slightly smaller portion of the more recently graduating class was employed in general hospitals (64 percent versus 66 percent for the class of 1972). The difference was not statistically significant. This result does not contradict the very gradual downward trend in general hospital employment discernable in conjunction with the findings of the other studies. On the other hand, if employment in short-term special hospitals is included as part of hospital employment then the present study yields somewhat higher hospital employment rates (68-69 percent) than those found in 1973 and 1975 (63 and 65 percent respectively). This would suggest a reversal or at least a temporary suspension of the downward trend. Problems of data comparability among the various studies makes it difficult to reach any definitive conclusions as to the nature of the long-term trend. It seems quite possible, however, that a slight reversal has occurred during the past five years.

In any case, the proportion of graduates going into hospitals has remained fairly stable during this recent period, varying within a range of only a few percentage points. This stability is quite striking in view of the vast expansion in the number of students graduating from AUPHA affiliated programs. In 1948 there were about 150 graduates per year. In the late 1950s there were about 200. By 1965 there were 300, but within the next

five years the rate almost doubled, rising to 600 annually by 1970. The number doubled again between 1970 and 1975: there were approximately 1,100 Master's level graduates by the end of 1975. It is no wonder that the relative rate of hospital employment has declined somewhat. Indeed, it is rather remarkable that the rate has not declined to a greater extent, given the positively accelerated rate of increase in the number of program graduates.

Hospitals clearly continue to represent by far the most important single type of employer for the HA group. Although there has been a slight decline in the relative importance of hospital employment, there is little evidence in the present study to suggest that hospital administration graduates are in over-supply. Given current pressures on the health care system, however, it is difficult to believe that hospitals can indefinitely continue to absorb graduates at the same high rates if their numbers virtually double every five years. Should hospitals decline further in relative importance, it is impossible to predict--on the basis of the present study--which other types of health care organizations would or could take up the slack. Graduates of 1972 and 1974 went elsewhere in very small numbers so that no other type of organization absorbed more than 3.5 percent. The only exception was consulting and research firms which attracted more graduates from the class of 1974 (6.5 percent) than from the class of 1972 (3.5 percent). However, the absolute numbers were quite small, 29 and 13 respectively. No other category changed as much as 1 percentage point when the two graduating classes were compared.

Data from the Kellogg study, where comparable, yield identical results, implying no differences for the class of 1971. There is thus no present evidence to suggest that any other type of organization would expand sufficiently to absorb a significantly larger number of graduates.

It is not possible to offer a similar trend analysis for either the public health administration or planning groups since no comparable prior studies were available. The Kellogg survey did not contain a large enough sample of PHA graduates for reliable comparison, but the fragmentary data that do exist suggest there may have been an expansion in employment in public health agencies (from 11 to 21 percent) between the class of 1971 and those of 1972 and 1974. The Kellogg study also indicated that approximately 29 percent of 1971 health-planning graduates were employed in health planning agencies in 1973, a percentage almost identical with that found in the present study for 1977.

3. Geographic Distribution and Movement of Graduates

Geographic Division of Employment

Tables II-3 and 4 show the geographic distribution of all survey respondents as of Summer 1977, i.e., the division in which they were employed three to five years after graduation. Table II-3 gives the data for all respondents while Table II-4 shows it separately for graduates of hospital/health administration and public health administration programs.

The first column in Table II-3 indicates the proportion of

TABLE II-3

GEOGRAPHIC DIVISION OF EMPLOYMENT OF GRADUATES AT TIME OF SURVEY COMPARED WITH POPULATION OF U.S.[1]

(Percent)

Geographic Division of Employment in U.S.	All Graduates at Time of Survey (1977)	Total U.S. Population (1976)	Ratio of Percent of Graduates to Percent of Total Population
New England	5.2	5.7	.91
Middle Atlantic	15.8	17.4	.91
East North Central	19.2	19.1	1.01
West North Central	5.9	7.8	.76
South Atlantic	17.4	15.8	1.10
East South Central	5.6	6.4	.88
West South Central	9.2	9.9	.93
Mountain	5.5	4.6	1.20
Pacific	14.6	13.4	1.09
Outside continental U.S.	1.6	-	-
	100.0	100.0	
N =	(1,090)	(214.7 mil)	

[1]The various geographic divisions are defined as follows: New England: Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut; Middle Atlantic: New York, New Jersey, Pennsylvania; East North Central: Ohio, Indiana, Illinois, Michigan, Wisconsin; West North Central: Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska, Kansas; South Atlantic: Delaware, Maryland, District of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida; East South Central: Kentucky, Tennessee, Alabama, Mississippi; West South Central: Arkansas, Louisiana, Oklahoma, Texas; Mountain: Montana, Idaho, Wyoming, Colorado, New Mexico, Arizona, Utah, Nevada; Pacific: Washington, Oregon, California, Alaska, Hawaii.

TABLE II-4

GEOGRAPHIC DIVISION OF EMPLOYMENT OF HA AND PHA GRADUATES AT TIME OF SURVEY COMPARED WITH POPULATION OF U.S.

(Percent)

Geographic Division of Employment in U.S.	Hospital/Health Administration Program Graduates	Ratio of Percent of HA Graduates to Percent of U.S. Pop.	Public Health Administration Program Graduates	Ratio of Percent of PHA Graduates to Percent of U.S. Pop.
New England	5.7	1.00	4.3	.75
Middle Atlantic	16.4	1.04	14.4	.83
East North Central	20.2	1.06	16.3	.85
West North Central	6.9	.89	3.1	.40
South Atlantic	16.8	1.06	19.8	1.25
East South Central	5.8	.91	5.4	.84
West South Central	7.7	.78	14.8	1.50
Mountain	5.8	1.26	5.1	1.11
Pacific	13.5	1.01	14.0	1.05
Outside continental U.S.	1.2	-	2.7	-
	100.0		85.9	
N =	(810)		(257)	

graduates employed in each of the country's nine geographic divisions at the time of the survey. (The composition of each division follows the U.S. Census definition and is specified below the table.) The second column indicates the proportion of the total United States population residing in each division. The third column is the ratio formed by dividing column 1 by 2. The ratios provide a rough index of whether the various areas have a relative deficit or excess of graduates in comparison with the total population. Areas with ratios of less than 1.00 can be characterized as divisions of relative deficit, and those with ratios in excess of 1.00 as areas of relative excess.[1]

The table indicates that four census divisions had an excess of graduates relative to the population of the division. In descending order the divisions were: Mountain, South Atlantic, Pacific and East North Central, with the ratio almost equal to 1.00 in the last division. The areas with the greatest relative deficits again in descending order, were West North Central, East South Central, Middle Atlantic, New England, and West South Central.

When the same computations were made for the graduates of hospital/health administration and public health administration programs separately, the results were somewhat different, as shown in Table II-4. The five divisions with a relative excess of hospital/health administration graduates were Mountain, South Atlantic, East North Central, Middle Atlantic and Pacific, with the ratio approaching

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[1]Although this index is commonly used in health-manpower literature, its major limitation should be mentioned. The ratio is a relative measure, completely independent of the absolute numbers of graduates or population: the index would remain the same if there were a total of 50 or 5000 graduates distributed among divisions in the same proportions. The designation "deficit" or "excess" thus has validity only in relative, not absolute terms. An area of relative excess might, in actuality, have a need for more graduates if they were not being produced in sufficient aggregate numbers. The regional trade model discussed below makes this limitation most apparent.

1.00 in the last division. Four of the five were the same as shown in Table II-3 for all respondents, but the order and magnitude of the excesses was somewhat different. The Middle Atlantic division, however, emerged as an area of relative excess rather than as one of deficit in the earlier table. The divisions with a relative deficit of hospital/health administration graduates were West South Central (.778), West North Central, and East South Central, also somewhat different from the ratios for all graduates combined.

The ratios for public health administration graduates revealed a rather different pattern of relative excesses and deficits. For example, New England, the Middle Atlantic and East North Central divisions were areas of relative deficit with regard to public health administration graduates but they were areas of relative excess or equality among HA graduates. The area of greatest relative deficit was the West North Central (.[illegible]). This was also a deficit area for HA graduates, but the deficit was less extreme (.885).

The geographic distribution of graduates, although somewhat uneven, showed a high degree of association with population as the tables have indicated. Another way to measure the association is provided by rank order correlation coefficients. By geographic divisions, the coefficients correlating graduates with population were as follows: all respondents--.97; hospital/health administration graduates--.95; public health administration graduates--.77. Even when the correlations were done by states, rather than divisions, they remained quite high. By states, the correlation coefficient for hospital/health administration graduates was .88, and for public

health administration graduates it was .63. The coefficient for both groups combined was .86. It would appear that graduates, particularly those from hospital/health administration programs, distribute themselves throughout the country in a pattern commensurate with the general distribution of the population.

Movement of Graduates: Division of Training vs. Division of Employment

The preceding section indicated the very high correlation between the geographic distribution of health care administration graduates and the distribution of the total United States population. It said nothing about where the graduates received their training, nor about the flow of graduates between geographic regions. The remaining discussion is addressed to these questions. However, the discussion is confined to hospital/health administration graduates: the sample size for PHA graduates was not sufficient to sustain the analysis.

The twenty-nine hospital/health administration programs covered in the survey were located throughout the continental United States.[1] Nineteen states and the District of Columbia had one or more Master's level programs of this type while twenty-nine states had none. When aggregated into census divisions, however, there was no area completely lacking a program. Column 1 of Table II-5

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[1]Neither Hawaii nor Puerto Rico were included as they were outside the continental United States. Also omitted were three known programs which refused to participate in the survey. See Chapter I for a more complete specification of the survey universe.

indicates the percentage distribution of survey respondents by the geographic division from which they graduated in 1972 or 1974. Every division produced some graduates, though the numbers ranged widely. New England had fewest (only one small program), South Atlantic the most (four medium to large-sized programs).

Column 2 indicates the proportion of all graduates employed in each division at the time of the survey. Comparison of these figures with those in column 1 makes it obvious that many divisions did not train enough graduates to meet the needs of their populations (even if all had been retained), while other divisions produced more than necessary to meet regional needs. New England, for example, trained less than 1 percent of all graduates in 1972 and 1974 but employed 6 percent of them in 1977. A more dramatic example in the other direction is provided by the West North Central division which trained 23 percent of all 1972 and 1974 graduates but employed only 7 percent.

Column 3, which gives the ratio of graduates employed in each division to graduates trained in that division, provides a rough measure of the match between local demand and supply. A ratio less than 1.00 is usually interpreted to indicate a relative excess of supply, implying that graduates can be "exported," while a ratio of more than 1.00 indicates a relative shortage of graduates and the need to "import" them from other divisions to meet local needs. As mentioned earlier, however, this can be a misleading interpretation as well as an oversimplification of the actual patterns of movement of graduates between geographic areas. The ratios in Column 3 indicate that the areas of greatest relative shortage were

TABLE II-5

SUPPLY AND DEMAND, AND RETENTION RATES BY GEOGRAPHIC DIVISIONS: HOSPITAL/HEALTH ADMINISTRATION GRADUATES

(Percent)

Geographic Division	Graduates Produced in 1972 and 1974	Graduates Employed (1977)	Ratios of Graduates Employed to Grads Produced	Graduates Retained in Division	Graduates Leaving Division
	(1)	(2)	(3)	(4)	(5)
New England	.6	5.6	9.33	80.0	20.0
Middle Atlantic	17.0	16.3	.96	53.2	46.8
East North Central	15.1	20.1	1.33	60.2	39.8
West North Central	22.6	6.9	.31	23.4	76.6
South Atlantic	23.2	16.7	.72	46.6	53.4
East South Central	2.2	5.8	2.64	88.9	11.1
West South Central	8.5	7.6	.89	43.5	56.5
Mountain	2.8	5.8	2.07	82.6	17.4
Pacific	8.1	13.4	1.65	81.8	18.2
Foreign		1.0	NA		
Unknown		.9	NA		
	100.1	100.1			
N =	(816)	(816)		49.3	50.7

New England, East South Central, Mountain and Pacific. The West North Central and South Atlantic stood out as divisions with the greatest excess of graduates relative to regional needs.

The above analysis oversimplifies because it implies that local (divisional) needs are met by local supplies. For the hospital/health administration graduates being studied here, this was often not the case. Column 4 of Table II-5 shows the proportion of graduates who were both trained and subsequently employed in the same division--the portion of graduates retained--while Column 5 indicates the proportion who were trained in the division but were working in some other division at the time of the survey--the "export" rate if you will.

Overall, i.e., considering all HA respondents together, approximately one-half were working in the same division from which they had graduated three to five years earlier, while one-half were employed in a different geographic division. The "retention" rates among the various divisions were far from uniform, however. Four divisions--New England, East South Central, Mountain and Pacific--retained 80 percent or more of their graduates, exporting or losing only 11 to 20 percent. The West North Central, on the other hand, retained only 23 percent of its graduates, losing 77 percent to other divisions. It is important to observe, nevertheless, that the retention rates were nowhere equal to 100 percent (a zero export rate). Even New England lost 20 percent of its graduates, although its retention rate was among the highest. Other shortage areas--East South

Central, Mountain and Pacific--had even higher retention rates but still lost 11 to 18 percent of their graduates to other divisions. The division which produced the most graduates relative to need--West North Central--had the highest export rate but, as shown below, also imported some graduates from other divisions.

To illustrate the rather complex interactions among regions with regard to the training and employment of hospital/health administration personnel, a "regional trade" model is presented in Table II-6. It gives the actual numbers of survey respondents who were "imported" to and "exported" from each geographic region (census division), as well as those who were retained in the area to work after graduation. A region's "imports" are the graduates who were employed within the region as of 1977 but who had graduated from an HA program in some other region in 1972 or 1974. Similarly, a region's "exports" are graduates trained in the region but working in a different region at the time of the survey. The balance of trade, i.e., the difference between a region's exports and imports, shows the net results of these movements, a necessary computation in view of the fact that every region was both an exporter and importer of 1972 and 1974 graduates.

Columns 1 and 2 of Table II-6 reflect the retention and export rates portrayed in the prior table. As can be seen, all areas lost or exported some of their graduates, even regions producing far fewer than required to meet regional demand. All regions were also importers of graduates, even those which produced (trained) professionals

TABLE II-6

REGIONAL TRADE MODEL: PRODUCTION AND EXCHANGE OF HOSPITAL/HEALTH ADMINISTRATION GRADUATES AMONG GEOGRAPHIC DIVISIONS OF U.S.

Geographic Division	Graduates Produced and Retained	Graduates Produced and Exported	Graduates Imported	Balance of Trade
New England	4	1	42	-41
Middle Atlantic	74	65	59	6
East North Central	74	49	90	-41
West North Central	43	141	13	128
South Atlantic	88	101	48	53
East South Central	16	2	31	-29
West South Central	30	39	32	7
Mountain	19	4	28	-24
Pacific	54	12	55	-43
Foreign			9	- 9
Unknown			7	- 7
Totals	402	414	414	0

at rates well in excess of regional needs. The South Atlantic region, for example, exported 101 graduates but simultaneously imported 48, reducing its net exports to 53. The Middle Atlantic region exported a relatively large number of graduates (65) but imported almost as many (59). The same was true of the West South Central region. The largest net divisional importers of graduates, in order, were: Pacific, New England, East North Central, East South Central and Mountain. Only West North Central and South Atlantic were large net exporters.

Although the same detailed model was not made for the PHA group, it may be of interest to know the proportion of PHA respondents located in the same geographic divisions from which they had graduated three to five years earlier. The figures are given in Table II-7.

The above analysis, considered in its entirety, suggests the existence of extensive regional inter-dependencies. It indicates that regional production of health care administration graduates cannot be considered equivalent to regional supply. Most divisions must be seen as serving a national market, at least in part, and as dependent on other divisions for meeting local needs.

TABLE II-7

PHA GRADUATES OBTAINING MASTER'S DEGREES AT SCHOOLS IN VARIOUS DIVISIONS, BY GEOGRAPHIC DIVISION OF EMPLOYMENT AT TIME OF SURVEY

	Division of Employment at Time of Survey	
Division in Which School Located	In Same Division	In Different Division
New England	22.2	77.8
Middle Atlantic	100.0	0
East North Central	64.0	36.0
West North Central	0	100.0
South Atlantic	55.9	44.1
East South Central	No Schools of Public Health	
West South Central	63.5	36.5
Mountain	No Schools of Public Health	
Pacific	76.0	24.0
All PHA Graduates (N = 257)	56.4	43.6

CHAPTER III

GENERAL CHARACTERISTICS OF EMPLOYING ORGANIZATIONS AND JOBS HELD

The first part of this chapter describes some pertinent characteristics of the organizations which employed most program graduates. The second section analyzes the types of positions graduates held in those organizations with respect to line/staff duties, supervisory responsibilities, administrative levels and salaries. All of this is presented with a view toward providing a more complete information base on which to develop and plan Master's level programs in health administration. Thus, both similarities and differences between the jobs of graduates of the several types of educational programs were sought.

A somewhat different approach to the same problem is taken in Chapter IV where the focus is exclusively on job characteristics by type of organization, without regard to the specific Master's level program attended.

1. Characteristics of Organizations

Sponsorship

As Table III-1 shows, more than half of all respondents in health-related jobs at the time of the survey (55 percent) were employed in organizations with private, non-profit sponsorship, while 35 percent worked in governmentally sponsored organizations (federal, state or

TABLE III-1

SELECTED CHARACTERISTICS OF EMPLOYING ORGANIZATIONS BY TYPE OF EDUCATIONAL PROGRAM

(Percents)

Characteristic of Organizations	Type of Educational Program			
	All Respondents	Health/Hospital Administration	Public Health Administration	Health Planning
Sponsorship				
Private, non-profit	54.7	61.0	35.7	43.5
Private, for-profit	10.3	10.3	9.8	13.0
Public	35.0	28.7	54.5	43.5
Federal	10.2	8.4	15.3	17.4
State	14.0	11.1	23.9	8.7
Local	10.8	9.2	15.3	17.4
Size-Number of Employees[1]				
Less than 100	20.9	14.6	39.8	39.1
100-499	21.6	21.6	22.4	13.0
500-999	19.7	22.8	11.8	0
1,000 or more	37.6	41.0	26.0	47.8
N =	(1090)	(813)	(254)	(23)

[1]At respondent's location.

"local"). Only 10 percent worked in private, for-profit firms.

Among graduates of health/hospital administration programs, 61 percent were working in private, non-profit types of organizations (hospitals primarily), and 29 percent in governmentally sponsored organizations or agencies. The remaining 10 percent were in private for-profit firms. There were no significant differences in organizational sponsorship when the 1972 and 1974 classes were compared.

The data for public health administration graduates presented a much less consistent pattern. Overall, 55 percent of these respondents were working in governmentally sponsored organizations with the state the most common locus, accounting for 24 percent of employment, compared with 15 percent for regional, county, or city governments and 15 percent for federally sponsored agencies. There was, however, a significant difference in patterns between the graduates of 1972 and 1974. At the time of the survey, 32 percent of 1972 graduates were located in state-sponsored agencies, while only 18 percent of 1974 graduates were so located. An even larger difference existed in the private, non-profit sector which was the locus of employment for only 26 percent of 1972 graduates, compared with 43 percent of 1974 graduates. No obvious explanation for these relatively large shifts presents itself: an investigation of the market, i.e., employment opportunities, would no doubt help clarify the matter.

Among health planning graduates the organizational sponsorship pattern fell between the extremes described by the two groups above. Some 44 percent were working in private, non-profit organizations, and

an identical portion in governmental agencies. Approximately 13 percent were with private, for-profit firms.

Size of Organization--Number of Employees

Each respondent was asked to indicate the number of people employed by his/her organization or agency at the location of employment. Thus, a person in a city public health office would not count employees at the state or national level, but only those in the local office. On this basis, graduates of HA programs worked in larger organizations than did PHA graduates, as indicated in Table III-1. For example, only 15 percent of the HA group worked in organizations with fewer than 100 employees, while 40 percent of PHA graduates did so. On the other hand, 40 percent of HA graduates worked in organizations with more than 1,000 employees, while only 26 percent of PHA graduates did so. There were no significant differences by year of graduation for either group.

Eleven of the 23 health planning graduates were working in organizations which employed 1,000 or more people, while 9 were in firms with fewer than 100 employees. This rather peculiar distribution is probably an artifact of the small sample but it could, theoretically, reflect a bi-modal distribution.

Affiliations

Graduates were asked to indicate whether or not their organizations were (1) part of a comprehensive medical center, (2) part of or affiliated with a medical school, (3) branch of a larger firm, and/or

(4) independent, freestanding. It was concluded from an analysis of the data that the results were meaningful only for short-term hospitals, and they are therefore presented in that section of the report (Chapter IV).

2. Characteristics of Jobs Held

Line vs. Staff Position

As shown in Table III-2, half of all hospital/health administration graduates were in line positions at the time of the survey. However, there were significant differences between 1972 and 1974 graduates in this regard. Just over 40 percent of 1974 graduates held line jobs, compared with almost 60 percent of 1972 graduates. Differences between the two graduating classes were also evident with regard to staff positions and jobs which combined both line and staff responsibilities; both categories were more frequently observed among 1974 than 1972 graduates, though the differences were less pronounced. There are several possible explanations for these results. They could represent a progression in which new arrivals start with primarily staff responsibilities and move on gradually toward exclusively line jobs. On the other hand, the differences could represent a real shift in employment opportunities (from line to staff or combined line-staff) during the period under study.

Much smaller differences between the two classes were evident among PHA graduates. In fact, the differences were not statistically significant. Only 30 percent of the entire group held line positions

TABLE III-2

JOB CHARACTERISTICS BY TYPE OF EDUCATIONAL PROGRAM AND YEAR OF GRADUATION
(Percent)

Job Characteristic	All Respondents			Hospital/Health Administration			Public Health Administration			Health Planning
	Total	1972 Grads	1974 Grads	Total	1972 Grads	1974 Grads	Total	1972 Grads	1974 Grads	Total
Line vs. Staff Position										
Line	43.9	52.3	37.4	49.2	58.2	41.9	28.8	32.0	26.6	13.6
Staff	19.0	15.8	21.5	16.3	13.3	18.8	24.6	23.7	25.2	54.5
Both Line and Staff	37.1	32.0	41.1	34.5	28.5	39.4	46.6	44.3	48.2	31.8
Number of People Employed in Administrative Unit of Responsibility										
1-4	16.7	17.7	15.9	13.2	13.8	12.6	27.5	29.7	25.9	26.1
5-9	13.1	13.2	13.1	12.0	11.8	12.2	16.8	18.8	15.4	13.0
10-19	8.4	7.8	8.9	7.6	7.3	7.8	11.5	9.9	12.6	4.3
20-49	7.7	8.2	7.2	7.2	7.0	7.4	9.0	11.9	7.0	8.7
50-99	6.0	5.2	6.5	6.7	5.9	7.4	4.1	3.0	4.9	0
100+	29.7	31.4	28.4	37.6	39.2	36.3	6.1	5.9	6.3	8.7
Not Responsible for an Administrative Unit	18.4	16.5	20.0	15.7	14.9	16.3	25.0	20.8	28.0	39.1
N =	1034	456	578	790	355	435	244	101	143	23

(compared with 50 percent of the HA group), while just under half (47 percent) held positions with both line and staff responsibilities. One quarter held staff positions, a considerably larger portion than found among the HA group. In contrast, 55 percent of CHP graduates held staff positions, while 32 percent had combined line-staff responsibilities. Fourteen percent had purely line jobs.

Supervisory Responsibility

Table III-2 also indicates that almost two-fifths of all graduates from hospital administration programs were responsible for large administrative units, i.e., units employing more than 100 people. Just over 20 percent were associated with medium-size units (10 to 99 employees) while one-quarter were responsible for small units with fewer than 10 employees. Over 15 percent did not have responsibility for an administrative unit at all. There were no significant differences between the 1972 and 1974 graduates in this regard, at least not at the time of the survey. It would be reasonable to hypothesize a gradual growth in administrative responsibility, correlated with responsibility for increasing numbers of employees. This does not appear to be the case here. More recent graduates (the class of 1974) had supervisory responsibility for the same size units as did those who had graduated two years earlier.

The PHA graduates were not responsible for large administrative units. Close to 45 percent were associated with units having fewer than 10 employees, and about one-quarter had no such responsibilities at all. On the other hand, 25 percent did supervise 10 to 99

employees, and a very few (6 percent) were responsible for 100 or more. Again, there were no significant differences in this regard with respect to 1972 and 1974 graduates.

The small CHP group had no administrative responsibility for a unit (40 percent) or were responsible for very small units (40 percent). Although this sample is too small for broad generalization, the results do suggest that PHA and CHP graduates are more apt to hold staff positions and to have administrative responsibility for considerably fewer people than HA graduates.

Administrative Level in Organization

The questionnaire asked respondents to indicate, with regard to their current positions, how many administrative levels there were above them in their organizations (at the respondent's location). A review of questionnaire returns as they came in revealed that this question was not answered in the same manner by all respondents. Occasionally a vice-president or an assistant vice-president would indicate that there were three or even four levels above him/her in the administrative hierarchy. In most cases these individuals were located in large hospitals associated with university-centered medical schools. It would appear that the respondents were using the administrative hierarchy of the university, including the university president, as their frames of reference. In some other cases, rather less frequent, the respondent apparently considered the hospital Board of Trustees as an administrative level above. In view of the wording of the question, this was considered an inappropriate response and corrections were

made where justified by other data. Where the other data were insufficient, no changes were made. The aggregate results presented in this report may therefore be slightly biased downward, i.e., the proportion of respondents at the top administrative level may be somewhat understated (perhaps 2-3 percentage points), particularly for those employed in hospitals (the hospital/health administration group primarily).

The results, as presented in Table III-3, indicate that a considerable number of graduates reach high administrative levels in their organizations very quickly. Among all respondents, 16 percent were at the top (no administrative levels above) just three to five years after graduation. Forty-five percent of all respondents held second-level positions, i.e., one administrative level above. Almost 40 percent were at lower levels, predominantly the third (23 percent). For all respondents together, the differences in administrative levels between the classes of 1972 and 1974 were not significant at the .05 level. That is, there were no discernable differences in administrative levels between the two classes even though one group had been employed for two years longer than the other.

The results just described did not apply uniformly to the two major subgroups of the study. An important exception was found in the hospital/health administration group where there were significant differences between graduates of 1972 and 1974. The most important difference between the two classes was in the proportion holding top-level jobs. Twenty-one percent of the class of 1972 held such positions,

TABLE III-3

ADMINISTRATIVE LEVEL IN ORGANIZATION

NUMBER OF ADMINISTRATIVE LEVELS ABOVE	ALL RESPONDENTS			HOSPITAL/HEALTH ADMINISTRATION			PUBLIC HEALTH ADMINISTRATION			HEALTH PLANNING
	Total	1972 Grads.	1974 Grads.	Total	1972 Grads.	1974 Grads.	Total	1972 Grads.	1974 Grads.	Total
None	16.3	19.1	14.0	16.2	20.7	12.4	17.2	14.6	19.0	8.7
One	44.8	46.2	43.7	48.3	49.6	47.2	34.4	34.0	34.7	34.8
Two	23.3	21.0	25.0	24.4	20.7	27.5	18.8	21.4	17.0	30.4
Three	9.0	7.6	10.2	7.3	5.4	8.8	14.4	15.5	13.6	13.0
Four or more	6.6	6.1	7.1	3.8	3.5	4.0	15.2	14.5	15.6	13.0
N =	(1,083)	(476)	(607)	(810)	(367)	(443)	(250)	(103)	(147)	(23)
p Value		.0981			.003			.897		

compared with only 12 percent of the 1974 class. These are cross-sectional, rather than longitudinal, data but they suggest a considerable degree of upward mobility for this group. The salary data (below) tend to reinforce this suggestion.

Although approximately the same proportion of hospital/health administration and public health administration graduates held top-level jobs at the time of the survey (16-17 percent), a much larger proportion of the latter group were found in the lower administrative eschelons, i.e., those with three or more administrative levels above. The comparable figures were 30 and 11 percent for PHA and hospital/health administration graduates respectively.

Salaries

Salaries for all respondents who reported that they were working full-time in a health-related job averaged $24,150. (Approximately thirty-one respondents (3 percent) said they were working part-time, or that their full-time job was not fully health-related. These people were not included in the salary computations.) Table III-4 presents the frequency distributions and mean salaries for respondents by type of educational program and year of graduation.

Salaries for the hospital/health administration group averaged $24,550. Those who had graduated from HA programs in 1972 were earning $26,540, on average, compared with $22,900 for the class of 1974. Those who had been working for five years were thus averaging $3,640 more than their fellow graduates with only three years in the field.

TABLE III-4

SALARIES OF GRADUATES BY TYPE OF EDUCATIONAL PROGRAM AND YEAR OF GRADUATION[1]

Salaries	Type of Educational Program and Year of Graduation									
	All Respondents			Hospital/Health Administration			Public Health Administration			Health Planning
	Total	1972 Grads	1974 Grads	Total	1972 Grads	1974 Grads	Total	1972 Grads	1974 Grads	Total
Means (in dollars)	24,150	26,110	22,600	24,550	26,540	22,900	23,190	24,710	22,070	20,100
Frequencies (percents)										
Less than $15,000	4.1	3.2	4.8	1.6	1.4	1.8	11.9	10.1	13.3	9.5
$15,000-17,999	11.7	7.5	14.9	9.7	7.0	12.0	16.6	10.1	21.3	28.6
$18,000-20,999	24.7	16.2	31.6	25.2	13.6	34.7	22.5	22.2	22.8	33.3
$21,000-24,999	25.6	24.8	26.2	27.9	27.0	28.7	18.3	17.2	19.1	19.0
$25,000-34,999	25.8	37.3	16.6	28.2	40.7	17.8	19.6	27.3	14.0	4.8
More than $35,000	8.1	11.0	5.8	7.3	10.3	4.9	11.1	13.1	9.6	4.8
Cumulative Frequencies										
Less than $15,000	4.1	3.2	4.8	1.6	1.4	1.8	11.9	10.1	13.3	9.5
$15,000-17,999	15.8	10.7	19.7	11.3	8.4	13.8	28.5	20.2	34.6	38.1
$18,000-20,999	40.4	26.9	51.3	36.5	22.0	48.5	51.0	42.4	57.4	71.4
$21,000-24,999	66.0	51.7	77.5	64.4	49.0	77.2	69.3	59.6	76.5	90.4
$25,000-34,999	91.8	89.0	94.1	92.6	89.7	95.0	88.9	86.9	90.5	95.2
More than $35,000	100.0	100.0	99.9	99.9	100.0	99.9	100.0	100.0	100.1	100.0
N =	1047	464	583	791	359	432	235	99	136	21

[1]For those working full-time in a health-related job.

Among graduates of public health administration programs, the average salary for all respondents was somewhat lower at $23,190. Differences between the two graduating classes were also less marked. The more recent graduates (the class of 1974) had average annual salaries of $22,070, while those who had graduated two years earlier were earning $24,710, a difference of $2,640.

Mean salaries are convenient summary measures for comparing the various groups of graduates. A more complete picture is provided by the frequency distributions, both relative and cumulative. There is, for example, a rather large difference in mean salaries between 1972 graduates of hospital/health administration programs and PHA programs--$26,340 and $24,710 respectively. The cumulative frequencies show that only 22 percent of the former group were earning less than $21,000 at the time of the survey, compared with 42 percent of the latter. Other comparisons of interest can be made easily by the reader.

The small group of health-planning graduates had the lowest average salaries found among the three types of programs. The 21 respondents who reported their salaries indicated average earnings of $20,095. Those who had graduated in 1972 were earning approximately $23,500, compared with $18,735 for the class of 1974. However, because of the very limited size of this group, neither the absolute salary levels nor the differences between classes can be considered very reliable from a statistical point of view. Salary data for respondents working in health-planning agencies--regardless of type of educational program--are considerably more reliable and are presented in the next chapter.

CHAPTER IV

JOB CHARACTERISTICS BY TYPE OF ORGANIZATION

Since Master's level education in health administration is aimed at preparing students for professional careers in a varie y of institutional settings, it is useful to analyze the jobs held by program graduates in terms of the settings in which they are most commonly found. This section presents, in summary tables, data on (a) organizations (sponsorship, size) and (b) job characteristics (supervisory responsibilities, level in the administrative hierarchy and salaries) for graduates working in each of eleven different types of health services and health-related organizations. The summary tables (Tables IV-1-3) are followed by a discussion of the findings for each major type of organization, e.g., hospitals, ambulatory care centers, public health agencies, etc. The reader should refer back to the appropriate column of the summary tables in order to fully understand the discussion sections.

Also included in each section is a description of responses to an open-ended question in which graduates were asked to give a brief statement of their principal on-the-job activities (Question #C-6). In any questionnaire the response rate for open-ended questions is typically lower than for structured questions which merely require checking the appropriate blank, and the job activities question proved to be no exception to that general rule. With some frequency,

TABLE IV-1

SPONSORSHIP AND SIZE OF ORGANIZATIONS EMPLOYING HEALTH CARE GRADUATES

(Percent)

Characteristic of Organization	Personal Medical Service Organizations					Health-Related Organizations					
	Short Term Hospital	Long-Term Facil.	Ambul-atory Care	HMO	Other Pers. Service	Public Health Agency	Hlth Plann-ing	Consult/ Rsrch	Med Schl/ Univ.	Admin/ Regl.	Other Health Related
Sponsorship											
Private, non-profit	69.6	43.8	36.1	77.4	40.0	2.8	73.0	13.6	34.7	11.9	60.2
Private, for profit	6.4	6.3	13.9	12.9	24.4	0	0	79.7	2.7	0.0	9.6
Government	24.1	50.1	50.0	9.7	35.5	97.2	27.0	6.8	62.6	88.0	30.1
Federal (Military and Civil)	5.9	6.3	30.5	6.5	6.6	4.2	5.4	6.8	6.6	69.0	19.2
State	7.5	43.8	5.6	0.0	17.8	44.4	13.5	0.0	54.7	19.0	6.0
Local (City, Regional	10.7	0.0	13.9	3.2	11.1	48.6	8.1	0.0	1.3	0.0	4.8
Size (No. Employees at Respondent's Location)											
Less than 100	1.5	6.3	61.1	56.2	46.7	29.6	86.5	62.7	24.0	16.7	48.8
100-499	21.2	37.5	36.2	3.1	20.0	19.7	2.7	25.4	24.0	40.5	23.2
500-999	27.1	18.8	0.0	6.2	6.7	24.0	2.7	8.5	10.7	9.6	11.0
1,000 +	50.3	37.5	2.8	34.4	26.7	26.8	8.1	3.4	41.3	33.3	17.1
N ≅	(598)	(16)	(36)	(32)	(45)	(71)	(37)	(59)	(75)	(42)	(82)

TABLE IV-2

SUPERVISORY RESPONSIBILITIES AND ADMINISTRATIVE LEVEL OF HEALTH-CARE GRADUATES BY TYPE OF ORGANIZATION

(Percent)

Characteristic of Organization	Personal Medical Service Organizations					Health-Related Organizations					
	Short-Term Hospital	Long-Term Facil.	Ambul-atory Care	HMO	Other Pers. Service	Public Health Agency	Hlth Plann-ing	Consult/ Rsrch	Med Schl/ Univ.	Admin/ Regl.	Other Health Related
Number of People Employed in Administrative Unit of Responsibility											
1) 1-4	8.6	18.8	5.6	18.8	31.0	22.5	33.3	23.6	25.7	29.3	39.5
2) 5-9	9.6	6.3	25.0	18.8	21.4	15.5	21.2	9.1	18.6	19.5	14.8
3) 10-19	6.5	6.3	19.4	15.6	11.9	16.9	6.1	3.6	12.9	7.3	6.2
4) 20-49	6.2	0.0	25.0	18.8	7.1	15.5	12.1	3.6	8.6	7.3	1.2
5) 50-99	6.9	31.3	11.1	6.3	7.1	8.5	0.0	0.0	4.3	0.0	1.2
6) 100 or more	50.2	31.3	5.6	6.3	16.7	7.0	0.0	0.0	0.0	2.4	2.5
7) Not responsible for admin. unit	12.0	6.3	8.3	15.6	4.8	14.1	27.3	60.0	30.0	34.1	34.6
Number of Administrative Levels Above											
None	15	25	44	47	40	17	5	16	1	5	13
One	55	31	42	22	40	38	37	44	30	19	20
Two	24	31	8	9	12	18	50	16	29	26	28
Three or more	7	13	6	22	7	27	8	24	40	50	39
N =	(592)	(16)	(36)	(32)	(42)	(71)	(38)	(55)	(70)	(42)	(83)

TABLE IV-3A

FULL-TIME SALARIES BY TYPE OF ORGANIZATION AND YEAR OF GRADUATION[1]

(Percent)

Full-Time Salaries	Personal Medical Service Organizations									
	Short-Term Hospital		Long-Term Facility		Ambulatory Care		HMO		Other Personal Services	
	1972 Grads	1974 Grads	1972 Grads	1974 Grads	1972 Grads	1974 Grads	1972 Grads	1974 Grads	1972 Grads	1974 Grads
Less than 15,000	1.2	1.9	0	0	8.3	8.7	0	0	14.3	4.8
$15,000-17,999	6.2	12.9	33.3	22.2	0	17.4	7.1	16.7	0	9.5
$18,000-20,999	10.0	32.0	16.7	33.3	16.7	30.4	14.3	11.1	23.8	33.3
$21,000-24,999	28.2	29.8	16.7	22.2	8.3	17.4	28.6	38,9	19.0	14.3
$25,000-34,999	44.4	18.5	33.3	11.1	58.3	13.0	28.6	22.2	28.6	9.5
$35,000 or more	10.0	5.0	0	11.1	8.3	13.0	21.4	11.1	14.3	28.6
	100.0	100.1	100.0	99.9	99.9	99.9	100.0	100.0	100.0	100.0
Chi-square	.000		.7077		.1390		.8191		.3388	
Mean by Year Grad[2]	$26,950	$23,010	$22,580	$23,060	$27,130	$22,960	$27,680	$24,970	$25,070	$26,290
All Grads	$24,770		$22,870		$24,390		$26,160		$25,680	
N =	(259)	(319)	(6)	(9)	(12)	(23)	(14)	(18)	(21)	(21)

[1]Salaries for all respondents employed full-time in a health-related job. Not included were the few respondents working either part-time or in a full-time job only partially concerned with health care.

[2]In computing means, a "mid-point" of $40,000 was used for the respondents checking the category "$35,000 or more."

TABLE IV-3B

FULL-TIME SALARIES BY TYPE OF ORGANIZATION AND YEAR OF GRADUATION[1]

	Health-Related Organizations											
	Public Health Agency		Health Planning		Consulting/ Research		Med. School/ University		Admin./ Regulatory		Other Health Related	
Full-Time Salaries	1972 Grads	1974 Grads	1972 Grads	1974 Grads	1972 Grads	1974 Grads	1972 Grads	1974 Grads	1972 Grads	1974 Grads	1972 Grads	1974 Grads
Less than $15,000	3.0	16.8	5.2	6.7	0	3.2	10.3	17.5	0	0	7.9	4.8
$15,000-17,999	6.3	19.4	26.3	6.7	5.9	16.1	13.8	20.0	6.3	12.5	7.9	21.4
$18,000-20,999	34.4	33.3	31.6	46.7	17.6	29.0	24.1	30.0	18.8	33.3	21.1	33.3
$21,000-24,999	18.8	19.4	15.8	26.7	11.8	22.6	20.7	12.5	37.5	25.0	23.7	31.0
$25,000-34,999	28.1	8.3	15.8	13.3	35.3	22.6	20.7	17.5	25.0	25.0	28.9	7.1
$35,000 or more	9.4	2.8	5.3	0	29.4	6.5	10.3	2.5	12.5	4.2	10.5	2.4
	100.0	100.0	100.0	100.1	100.0	100.0	99.9	100.0	100.1	100.0	100.0	100.0
p Value	.1101		.5983		.1960		.5852		.6435		.0382	
Mean by Year Grad[2]	$24,660	$19,940	$21,680	$21,230	$29,470	$23,230	$23,480	$20,510	$25,810	$23,480	$24,820	$20,890
All Grads	$22,160		$21,490		$25,440		$21,760		$24,410		$22,760	
N =	(32)	(36)	(19)	(15)	(17)	(31)	(29)	(40)	(16)	(24)	(38)	(42)

[1]Salaries for all respondents employed full-time in a health-related job. Not included were the few respondents working either part-time or in a full-time job only partially concerned with health care.

[2]In computing means, a "mid-point" of $40,000 was used for the respondents checking the category "$35,000 or more."

respondents failed to list any activities, or listed only one. The results were thus less complete than for other parts of the questionnaire, but nevertheless of considerable interest to educators and researchers in the area of task/skill responsibilities.

1. Personal Medical Service Organizations

Short-Term Hospitals

Approximately 600 respondents were working in hospitals, both short-term general and special, at the time of the survey (summer 1977). Almost all had been trained in hospital/health administration programs, but 32 (out of 598) had graduated from programs in public health administration. Most (70 percent) were located in private, non-profit hospitals, but one-quarter were in governmentally sponsored units. Only 6 percent were in private, for-profit hospitals. Approximately one-third of the respondents said their hospitals were affiliated with a medical school, and one-quarter claimed to be part of a comprehensive medical center. Ninety-six respondents (16 percent) claimed both of these affiliations. The rest considered their hospitals to be independent or free-standing.

Size of Organization

As shown in Table IV-4, respondents were rather evenly distributed among small, medium and large size institutions. One-third worked in hospitals with 100 to 300 beds, and 30 percent each were located in units with 300 to 500 or more than 500 beds. Fewer than 10 percent were in hospitals containing less than 100 beds. Table IV-1, Column 1 indicates that exactly 50 percent worked in hospitals employing

TABLE IV-4

EMPLOYMENT BY HOSPITAL SIZE: NUMBER OF BEDS

Number of Beds	Graduates Employed in Hospitals	
	Number	Percent
Less than 100	52	8.7
100-299	198	33.2
300-499	173	29.0
500-699	99	16.6
700-999	36	6.0
1,000 or more	39	6.5
Total	597	100.0

1,000 or more people: the rest were in smaller units which employed 500 to 1,000 people (27 percent of respondents) or 100 to 500 people (21 percent of respondents).

Line vs. Staff

Within hospitals, the majority of respondents (64 percent) held line positions or combined line/staff positions (29 percent). Only 8 percent reported that they held purely staff positions. Half of the respondents had administrative responsibility for units which employed 100 or more people, while 40 percent supervised smaller units, or were not responsible for an administrative unit at all (12 percent).

Administrative Level

All but 7 percent of the graduates employed in short-term hospitals were working at middle- or top-level management positions, as shown in column 1 of Table IV-2. The majority (55 percent) were at the assistant level, with one administrative level above them. One-quarter occupied the level below that, while 15 percent held top posts, i.e., no administrative levels above. Clearly program graduates achieve important administrative positions quite early in their careers, in these cases within three to five years after graduation. It is interesting to note, however, that among the relatively few respondents who were employed in certain settings other than hospitals, an even larger proportion held the top posts in their organizations. This was true, for example, in HMOs, ambulatory care settings and "other" personal medical service organizations where between 40 and 47

percent of respondents held the top position.

Salaries

Salaries for respondents working in hospitals were good, although they were not the highest achieved in the various organizational settings recorded on Table IV-5A. (HMOs and consulting/research organizations paid somewhat more, on the average.) In 1977 the mean full-time salary for 1972 graduates was $26,950; for 1974 graduates it was almost $4,000 lower, at $23,010.

Salaries in hospitals were one of the few places in which significant differences were found between male and female graduates. For the class of 1974, females were earning slightly more than males as of summer, 1977--$23,770 vs. $22,930.[1] However, for the class which had graduated in 1972, the differences were in the reverse direction and considerably more extreme. Males were earning an average of $27,225, while females were earning only $24,500. This situation takes on a rather more ominous note when the salaries of this group on their first job after graduation (not present job) are considered. As shown on Table IV-5, females in both the 1972 and 1974 graduating classes earned significantly more than their male classmates on their first jobs. For 1972 graduates, mean salaries were $17,150 for females and $14,740 for males. Among 1974 graduates the comparable figures were $17,850 and $15,410. Yet by 1977 the difference for those who had been out five years (the class of 1972) favored males by an average of $2,725.

[1] The difference was significant at the .02 level.

Women in the class of 1974, out three years, still retained an edge but it was very much smaller (on average, down from $2,440 to $840) and of considerably lower statistical significance.

It may be that the differences between the two classes (1972 and 1974) represent real advances for women with regard to opportunities in the hospital field. Such changes appear to be taking place in the business community and could well be occurring in hospitals as well. This interpretation must not, however, be taken for granted. Data from this study make it appear quite possible, even likely, that women in more recent graduating classes will gradually fall behind their male counterparts over time, just as women in the class of 1972 did. It will be necessary to monitor the situation carefully in order to establish whether or not any real changes are taking place.

TABLE IV-5

COMPARISON OF MALE AND FEMALE SALARIES FOR THOSE WORKING IN HOSPITALS AT THE TIME OF THE SURVEY[1]

(Percents)

Salaries	Graduates in Hospitals			
	1972 Grads		1974 Grads	
	Male	Female	Male	Female
Salaries on First Job After Graduation				
Less than $12,000	11.2	19.2	7.9	7.4
$12,000-14,999	49.1	15.4	46.0	25.9
$15,000-17,999	31.9	30.8	32.9	29.6
$18,000-20,999	5.6	15.4	8.7	18.5
$21,000-24,999	1.7	11.5	2.8	7.4
$25,000-34,999	.4	7.7	1.0	11.1
$35,000 or more	--	--	.7	--
	99.9	100.0	100.0	99.9
N =	(232)	(26)	(289)	(27)
Mean Salary	$14,740	$17,150	$15,410	$17,850
p Value	.0000		.0047	
Salaries as of Summer, 1977				
Less than $12,000	0	0	0	3.5
$12,000-14,999	.4	7.7	1.4	3.6
$15,000-17,999	4.7	19.2	12.7	14.3
$18,000-20,999	9.9	11.5	33.0	21.4
$21,000-24,999	30.0	11.5	30.6	21.4
$25,000-34,999	44.2	46.2	17.5	28.6
$35,000 or more	10.7	3.8	4.8	7.1
	99.9	99.9	100.0	100.0
N =	(233)	(26)	(291)	(28)
Mean	$27,230	$24,500	$22,930	$23,770
p Value	.0004		.0204	

[1]Full-time employees only.

Principle Job Activities

Since so many of the survey respondents were working in short-term hospitals, an attempt was made to write separate "scenarios" for those working at different administrative levels within the hospital setting. An initial sort was made according to how respondents had answered the prior question "how many administrative levels are there above you . . . " (#C-4). The responses ranged from "none" to "5 or more."

No Administrative Levels Above. There were approximately 89 respondents working in hospitals (15 percent) who checked "none," i.e., no administrative levels above them. The titles for these people included administrator, director, president, executive director, and executive or senior vice-president. Most respondents in this category did not list any specific activities but rather chose some general statement such as "chief executive officer," "overall administration," "day-to-day operation," or "the whole ball of wax" to describe their principle activities. It was, therefore, not possible to write or tabulate any specific task/skills list for this group.

One or Two Administrative Levels Above. Activities were separately tabulated for these two groups of respondents, although the former category (one administrative level above) was approximately three times as large as the latter (two levels above). When the tabulations were completed, the ten

activities listed most frequently by each group were compared. It was found that the list was identical. Although the relative frequencies were slightly different, the differences were not found to be statistically significant. The activities have therefore been combined for the two groups for purposes of this discussion, but some impressions of possible differences between the two administrative levels are also presented.

The title predominately associated with this group was assistant administrator or some minor variant of that title. The ten principle activities listed with the highest frequencies were:

Departmental supervision and control	144
Program planning	136
Line responsibility	127
Budget control	103
Program evaluation	88
Budget preparation and planning	72
Liaison with medical staff	54
Staffing, personnel authorization	41
Staff functions, e.g., special projects	35
Departmental coordination	27

Departmental supervision and control was listed as a principle activity most frequently. Some respondents specified the particular departments over which they had administrative responsibility, but the pattern did not appear to follow any common organizational framework. It cut across professional and support services lines with

some frequency.

Program planning was listed as a principle activity with only slightly lower frequency. The types of planning described were both short- and long-term in nature. Some of the particular planning programs mentioned were facilities planning (construction), outpatient services, and utilization planning. It is of some interest to note that program evaluation was mentioned considerably less often than program planning. The two activities do not, apparently, go hand-in-hand.

Line responsibilities occupied the third position but again the difference in frequencies was small. A number of respondents also mentioned that in the absence of the (chief) administrator they assumed the duties which he/she left temporarily vacant.

Budgetary matters assumed considerable importance. Budget control was mentioned with significantly higher frequency than budget preparation and planning, however, again suggesting some administrative separation of these activities.

Liaison with the medical staff was often listed specifically but it also appeared as a particular staff function, frequently tied in with various other staff assignments. Special assignments for the administrator or board were also considered staff functions. It is clearly difficult to draw firm demarcation lines among activities, particularly those which are solicited in this open-ended fashion.

Other activities which were listed occasionally included government relations, construction supervision and coordination, liaison with

external agencies, legal affairs, community relations, hiring and salary decisions, and liaison with other hospitals or health care organizations.

Three or More Administrative Levels Above. Respondents in this category played a wide variety of roles in the short-term hospital but in general their jobs were much more narrowly defined, with a lower general administrative content. It was impossible to distill a common set of activities from respondents in this group due to the great diversity of their jobs. Some examples will serve to suggest the range of activities found in this category.

1. Systems analyst: systems development and evaluation
2. Associate director, department of psychology: budget control, systems analysis, legal compliance
3. Employee relations specialist: handle employee and union complaints
4. Administrative assistant to clinical department chief: budget control, administrative liaison, clinic coordination
5. Personnel specialist: labor relations, employee training, recruiting for nursing services
6. Assistant administrator-purchasing: purchase supplies and equipment; warehouse, repair; plant management

Long-Term Care Facilities

Only 16 respondents were working in long-term care facilities at

the time of the survey. All but two had graduated from Master's programs in hospital/health administration. Auspice of the long-term care units was equally divided between private, non-profit and state government sponsorship. The facilities in this category included homes for the aged, for the mentally retarded, for the mentally ill, and for general nursing care.

Size of the long-term facilities was fairly large. Only one unit employed fewer than 100 people. Institutions of 100-500 and 1,000 or more employees were most common. Over 60 percent of respondents had administrative responsibility for more than fifty people. Four respondents held the top job in their facility while 5 were at the assistant level and 7 at lower levels. The salary data for the group were somewhat puzzling. Graduates of 1974 (9 respondents) were earning an average of $23,060, a figure quite consistent with the $23,010 salary being earned by their classmates located in short-term hospitals. Among those who had graduated two years earlier however the average salary was slightly lower ($22,580), a result which would not ordinarily be expected for the group with more experience. This discrepancy is most likely due to the very small sample but it warrants further investigation. If Master's level graduates are to be attracted to long-term care administration, the field must certainly offer competitive opportunities for salary development.

Principle Job Activities

The activities listed by respondents in long-term care facilities were very similar to those recorded by graduates in short-term, acute

care hospitals. Most had management responsibility--complete or at the assistant level--for many, if not all, operational departments. This responsibility usually included general administration, budget matters--preparation, control and planning--and with slightly lower frequency, staffing and personnel. The latter was a concern rather more frequently among long-term care respondents than with hospital administrators, perhaps indicating a somewhat different assignment of management functions. Institutional as well as program planning, development and evaluation were also mentioned with some frequency. Except for the heavier emphasis on personnel, however, it would be difficult to differentiate this group from line managers in short-term hospitals on the basis of a general characterization of their job activities. On the other hand, the role must be perceived as very different by graduates themselves, judging from the very small numbers actually found in long-term care units.

Ambulatory Care Facilities

Thirty-six respondents were working in ambulatory care facilities at the time of the survey. Of these, 23 had graduated from hospital/health administration programs, and 13 from programs in public health administration. The ambulatory care facilities were under auspices rather different from those which characterized short-term hospitals. Slightly more than one-third, as opposed to two-thirds, were private, non-profit while one-half as opposed to one-quarter were under some type of governmental sponsorship (primarily federal).

The units themselves were typically much smaller than hospitals

as measured by the number of people employed. Approximately 60 percent of respondents worked in centers employing fewer than 100 people, and an additional 36 percent were in units with between 100 and 500 employees. In contrast, only 23 percent of graduates located in short-term hospitals were in units of comparable (small) size. The scale of administrative responsibility, as measured by the number of people supervised, was also considerably lower. Clinic managers typically supervised the work of 5 to 50 people, compared with 100 or more for the hospital administrator. On the other hand, those in ambulatory care settings were more apt to occupy the top-level administrative position in their organization than were their counterparts in short-term hospitals. Forty-four percent of those in ambulatory care facilities indicated there were no administrative levels above them, in contrast to 15 percent of respondents located in short-term hospitals. Salaries in the clinic setting were almost identical with those for hospitals, averaging $27,130 and $22,960 for the graduates of 1972 and 1974 respectively.

Principle Job Activities

The principle job activities listed by respondents at the top two administrative levels were, in order of importance (frequencies): complete administrative responsibility; budgetary matters (control, review, preparation); personnel administration (staffing, hiring, training, evaluating); program planning; and program evaluation. The list is thus very similar to that which emerged for hospital administrators. The major difference, and this is somewhat impressionistic,

seems to lie in the smaller size and scope of the ambulatory care facility. Those in the top eschelons of the ambulatory care units perform functions which are frequently delegated to assistants in hospitals, where there is usually a more extensive administrative hierarchy. This is perhaps most apparent in the relatively heavy prominence of personnel administration in the ambulatory care setting, but it is also implied by the considerably lower weight attached to program planning.

Comprehensive Care Organizations

Thirty-two respondents (18 from hospital administration, 11 from public health administration and 3 from health planning programs) indicated that they were working in a comprehensive care organization such as an HMO. Most (more than 75 percent) were under private, non-profit sponsorship. Sizes were mixed, more than half having fewer than 100 employees while one-third had more than 1,000. Graduates in this group had responsibility for relatively small administrative units: 72 percent supervised fewer than 50 people. Almost one-half of the respondents indicated that they held the top administrative post in their organizations, but this figure must be qualified as seen in the discussion of "principle activities" below. Salary levels for this group were among the highest recorded for any of the 12 types of organizations covered in the survey. The mean for all respondents was $26,160, with 1972 graduates earning $27,680 and 1974 graduates $24,970. As Table IV-3 indicates, these figures were exceeded in only one or two other organizational settings.

The activities of the top-level comprehensive care administrators are rather vague since many failed to answer this open-ended question. Those who did respond mentioned most frequently day-to-day managerial activities, program planning and evaluation, budget matters, and personnel administration. The picture appears to resemble that already described for the chief administrator in an ambulatory care facility, but the details are not sharp enough to distinguish any unique or unusual features. The two next lower administrative levels appear to be analogous to those described for the assistant hospital administrator, with perhaps somewhat less emphasis on budgetary control and more on program planning and evaluation. The concept of quality--both measurement and monitoring--also appeared somewhat more frequently here than in the hospital setting. Respondents who were working at the third or fourth levels within the administrative hierarchy were largely performing special functions such as membership forecasting, market research, premium setting, data processing systems, staff allocation systems, review and evaluation systems, and so forth. Although it may be an artifact of the small sample, there is an impression conveyed that the comprehensive care setting is more oriented toward a quantitative, systems approach to planning and management than is the typical hospital.

Several respondents specified that their organizations were not yet operational; current job activities were therefore confined to the planning and design of various aspects of the future facility, e.g., location and staffing patterns, recruitment policies, quality

assessment procedures, a health education component, and in one case, full design responsibility for all aspects of a new HMO--legal, organizational, marketing, finance, etc.

Other Personal Medical Service Organizations

Respondents who felt they did not belong in any of the organizational settings already described, but who were in an organization which offered some type of personal medical services, put themselves into the "Other" category (column 5 in all summary tables). The range of activities within this highly varied set of organizations is too broad for description here but those items already described as important--general line responsibilities, budgetary matters, program planning and evaluation, and personnel administration--also appeared frequently among respondents in this category. The organizational settings which most commonly fell in the "other personal service" group were:

Mental health/psychiatric facilities (state psychiatric hospitals, community mental health centers, etc.) - 9 respondents

Private or group clinical practice (primarily dentistry) - 7 respondents

Multi-unit care organizations (VA, Catholic hospitals, proprietary chains with overall management centers) - 7 respondents

Home health agencies, including visiting nurses - 5 respondents

Rehabilitation centers (hearing, speech, developmentally disabled, alcoholism, chronics) - 5 respondents

Miscellaneous special government programs (Indian Health, Child and Maternal, EMS) - 5 respondents

2. Health-Related Organizations

Public Health Agencies

A total of 72 respondents were working in public health agencies at the time of the survey, 55 from public health administration programs and 16 from programs in health/hospital administration. Over 80 percent of the 72 were located in state or local government offices. The agencies, at the respondents' location, were of small, moderate and large size in about equal proportion. Only one-quarter worked in agencies with more than 1,000 employees, in contrast to one-half of the graduates working in hospitals. Of more significance, however, was the size of the units over which this group had administrative responsibility. Only 7 percent of those in public health agencies supervised units with more than 100 employees as compared with 50 percent of respondents in short-term hospitals. Most (70 percent) had responsibility for fewer than 50 people. On the other hand, administrative responsibility over some type of unit was equally common for the two groups: only 12-14 percent held staff-type positions with no supervisory responsibilities.

In terms of administrative level within the organization, respondents in public health agencies held the top position with approximately the same relative frequency as those in hospitals. However, they were also found at lower administrative levels (three or more administrative levels above) with considerably greater frequency

(27 versus 7 percent respectively). Salaries for those working full-time averaged $22,160, with Master's level graduates of 1972 earning $24,660 and graduates of 1974 averaging $19,940. The salary levels were thus $2,700-$3,000 lower than those achieved by respondents in hospitals, and lower than several other organizational settings as well.

Principle Job Activities

The specific jobs and job titles of those in public health agencies were wide-ranging: public health nurse, administrator, health officer, program coordinator, deputy commissioner of health, medical director, and health service analyst were but a few of the many titles held by this group. Nevertheless, considering their diversity, the respondents indicated a number of relatively common job activities. (All but one respondent recorded one or more activities.)

The activity listed most frequently (by 39 respondents) was program planning. In some cases the planning appeared to encompass broad-scale public health activities for entire areas, but more often it was associated with specific programs such as V.D. control, blood banks, T.B., Medicare, and home nursing. Second on the list, though mentioned by considerably fewer respondents (27), was program evaluation. As noted previously, planning and evaluation often do not go hand-in-hand. Moreover, it would appear that planning is mentioned more often than evaluation as a principle activity in virtually all job settings. Budget matters (fiscal control and budget preparation primarily) and general administrative responsibilities (departmental

rather than programatic), were third on the list (22 respondents), followed closely by program supervision.

Consulting or advising was an activity which appeared with a frequency unique to this group (mentioned by 11 respondents). Program implementation (as opposed to planning and evaluation) was mentioned as a principle activity by 10 respondents, and liaison with other agencies by 8. "Grantsmanship" and personnel administration were each mentioned by 7 people. Other activities which appeared at least 5 times were licensing (or certification), and staffing.

A programmatic orientation appeared predominant in this group, with certain administrative activities--general management, budget, personnel, etc.--as necessary concomitants of that position.

Health Planning Agencies

Thirty-eight respondents were working in health-planning agencies at the time of the survey. The majority (55 percent) had received their Master's training in programs in hospital/health administration, but almost 18 percent came from one of the two health-planning programs covered in the study. The remainder (26 percent) had graduated from public health administration programs.

Almost three-quarters of the respondents were with private, non-profit agencies, the rest with governmental units, mostly at the state level. The agencies tended to be small. Over 85 percent of respondents were in units with fewer than 100 employees: 65 percent reported fewer than 25. This was the smallest type of organization among the eleven described in this report.

The majority of planners (55 percent) had administrative responsibility for units with less than ten employees, while over one-quarter had no supervisory responsibilities at all. This stands in sharp contrast to the work profile of graduates in hospitals. Two of the respondents (only 5 percent) occupied the top-level position in their agencies. Almost 90 percent indicated there were one or two administrative levels above them. Salaries for the group, averaging $21,490, were among the lowest recorded among all the different types of organizations and showed no significant differences for the two graduating classes.

Principle Job Activities

The activity which appeared almost universally among respondents was plan development. The planning encompassed a wide range of perspectives, from health service systems in general to specific systems for acute care or mental health care to individual facilities and service units. Project review, primarily in connection with the agency's regulatory functions, was mentioned with second highest frequency. Other activities, listed by 3 to 5 respondents, included data collection and management, policy analysis, plan administration, program coordination, community relations and grant review.

Graduates in health planning agencies would appear to have a set of job tasks quite different from those required in a health service setting such as a hospital, long-term care facility or HMO. Their administrative responsibilities, in terms of general management skills, were minimal by comparison, while their abilities to develop, evaluate

and coordinate projects were considerably more extensive. The specific skills which health planners found most relevant to their tasks are examined in some detail in the chapter on curriculum relevance below.

Consulting and Research

Approximately 60 graduates were working in consulting or research organizations at the time of the survey, two-thirds of whom had been recruited from the class of 1974. Seventy-five percent had been trained in hospital/health administration programs.

The consulting/research firms were predominantly private for-profit, a characteristic unique among the eleven types of organizations discussed here. Over 60 percent employed fewer than 100 people. Another characteristic unique to this group was the very high proportion of respondents (60 percent) who had no responsibility for an administrative unit. Among those few who did have some such responsibility, the supervisory role typically extended to no more than four people. Some 16 percent of respondents occupied the top position in their organization, a proportion almost identical with that found among graduates employed in short-term hospitals. However, virtually all of those at the top were owner/presidents of small firms having fewer than twenty-five employees. A considerably larger portion of the consulting/research group, as compared with the hospital group, were found at lower levels (three or more above) in the administrative hierarchy. Average salaries were, nevertheless, among the highest recorded for any respondent group. The group average of $25,440 was exceeded by those in comprehensive care organizations but no other group matched the

$29,470 average salary received by 1972 graduates in consulting/research firms.

Principle Job Activities

Most of the consulting activity centered around long-range planning and general management studies for health care institutions. Management consulting encompassed a full range of services including financial matters--accounting systems, forecasting, feasibility studies, capital financing, etc.,--organizational design, program design and evaluation, and facilities design. A significant number of respondents indicated that their firms did consulting with many different types of organizations, not just hospitals or other health-related institutions. Data collection and analysis, systems design, quantitative methods and computer programming, forecasting techniques, evaluation methodologies and financial management skills all appeared with unique emphasis among this set of respondents.

Medical School, Other University

Seventy-five survey respondents, 65 percent of them from programs in public health administration, were working in medical schools or other university settings at the time of the survey. Approximately half the schools were state-sponsored, while one-third were private. Approximately half of the settings had fewer than 500 employees but 40 percent had more than 1,000. The majority of the respondents (almost 60 percent) had some administrative responsibility although it was exercised over relatively small units which rarely exceeded 20

people. Almost one-third of the group were not responsible for an administrative unit at all. In terms of administrative level within the school or university hierarchy, respondents were distributed in roughly equivalent proportions one, two, or three or more levels down from the top. Their salaries averaged $21,760, second from the bottom among the eleven types of organizations.

Principle Job Activities

Almost two-thirds of the group listed teaching as their major activity, with research as a frequent secondary activity. The rest of the group held administrative posts in connection with some academic program. A sampling of titles in this category was: director of post-graduate education, training administration, program manager--continuing education, curriculum specialist, director of admissions, program coordinator.

Administrative or Regulatory Agencies

Forty-two respondents, 24 from hospital/health administration, 17 from public health administration, and 1 from a health planning program classified themselves as working for administrative or regulatory agencies. Close to 70 percent were in federal agencies of some kind and 20 percent in governmental units at the state level. Well over half (57 percent) of the agencies employed fewer than 500 people at the respondent's location, but one-third had more than 1,000 employees.

In spite of the size of their agencies, the respondents had administrative responsibility over relatively few, if any, people.

Fifty percent supervised less than ten people, and one-third were not responsible for an administrative unit at all. Graduates in this group were found with the highest frequency at lower administrative levels. Fifty percent indicated that there were three or more levels above them (at their location). Forty-five percent reported one or two levels above. Salaries averaged $24,410, with the older (1972) graduates getting $25,810 compared with $23,480 for the more recent graduates of 1974.

Principle Job Activities

The jobs of those in administrative or regulatory agencies were varied. In general, however, they had an area of specialization--often a particular state or federal program but occasionally a series of programs--in which they developed and implemented plans, monitored compliance, and/or evaluated the programs. A few of the job titles and descriptions can perhaps best illustrate the nature of these positions.

1. Branch chief, HMO program (Federal). Develop HMOs.
2. Health service officer (Federal). Rural health ambulatory care practice development.
3. Specialist, hospital administration (Federal). On-site evaluation of hospitals for compliance with Medicare regulations.
4. HMO coordinator (State). Evaluate applicants for HMO licenses, regulate state-licensed HMOs.
5. Project officer (Federal). Technical assistance, support and monitoring for health-planning agencies in New Mexico.

6. Public health advisor (Federal). Monitoring of public health grants and contracts.
7. Public health advisor (Federal). Program evaluation and fiscal control over community health centers and National Health Service Corp sites in a specific geographic area.
8. Research associate (Federal). PSRO program evaluation for HEW.

Other Health-Related Organizations

Eighty-four graduates were located in organizations which were health-related but did not directly provide medical services. Half of the group had graduated from hospital/health administration programs, the other half from programs in public health or planning. The largest single group (about 20 respondents) were with some professional organization, primarily state hospital associations but also physicians' or nurses' associations and medical college associations. Ten worked for Blue Cross, and a few for commercial insurance carriers. No other type of organization appeared with significant frequency.

Sixty percent of the respondents in this category were with private, non-profit organizations. Most were small, almost half employing fewer than 100 people. Supervisory roles were extremely limited. More than one-third of respondents were not responsible for an administrative unit, and 40 percent had responsibility for fewer than five people. In spite of the relatively small size of the organizations, almost 70 percent of respondents reported that there were two or more administrative levels above them. Only 13 percent occupied the

top-level job, and 20 percent the next-to-top position. Salaries ranked in the lower half (about eighth) among the eleven types of organizations listed, averaging $22,760 for the group as a whole. Graduates of 1972 were earning $24,820, while graduates of 1974 averaged $20,890.

Principle Job Activities

The rather wide range of organizations and jobs falling into this "Other" category made complete summarization of activities impossible. There was, however, a great deal of similarity in the job acitivites of the relatively large group of respondents located in professional or "trade" associations. Education, research and technical assistance played major roles for most respondents. Government relations--regulations, lobbying, the regulatory process, policy development, etc.--was the specific topic area which appeared with the highest (almost universal) frequency.

The group with Blue Cross and other health insurers listed research, program development and evaluation, and liaison as their most frequent activities. Some typical job descriptions were:

1. Senior manager, R&D. Research into health insurance and health service systems.
2. Director, health care benefits. Development of new benefit programs with cost containment potential; program evaluation; national liaison activities.
3. Health planning coordinator. Program development and implementation; internal/external coordination.
4. Area executive, provider relations. Provider education; reimbursement; cost containment; Medicare and Medicaid.

CHAPTER V

CURRICULUM RELEVANCE AND EMPHASIS

A single curriculum taxonomy consisting of eighteen items was used to describe the various educational programs included in the survey. As explained in Chapter I, the taxonomy was adopted almost in its entirety from the one developed for, and successfully tested by, C. Austin in his survey for the Kellogg Commission. Most of the eighteen topic areas were virtually identical as to title, but a few minor changes were made to conform more closely with common academic categories.[1] Austin however, had used only titles in his survey of graduates. The present study added definitions to accompany each title for purposes of further standardization and clarification. One new area--Interpersonal Skills--was added because the results of the original survey had been somewhat confusing in this regard.[2] Limiting the revisions to these few, mostly minor, changes made it possible to compare, at least in gross terms, some of the findings of this study with those of the earlier report.

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[1] For example, Austins' two categories Computer Applications/ Systems Analysis and Quantitative Methods were rearranged into Information Systems/Computer Applications and Quantitative Methods/ Applied Statistics.

[2] It was not clear just what respondents had had in mind when they checked Personnel Administration or Applied Administrative Theory. The addition of definitions, plus the new topic area, helped to clarify this question.

A copy of the curriculum taxonomy as it appeared in the questionnaires to program graduates and directors is reproduced on the following page. Tables throughout the remainder of the chapter--and later chapters as well--refer to the various topic areas only by abbreviated titles.

Graduates were asked to indicate the degree to which their programs had emphasized each of the eighteen topic areas at the time they were enrolled, and also to record the degree of relevance each topic area had vis-à-vis their present jobs. The same scaling system was used for both parts of the question: 1 = High relevance or emphasis, 2 = Moderate, 3 = Low and 4 = None. Thus the lower the number, the higher the emphasis or relevance rating--an important point to bear in mind when analyzing the data which follow.

The chapter is divided into three sections. Graduates' ratings on curriculum relevance are presented first, as they relate most directly to the preceding chapters on employment. The second section examines the emphasis ratings, and also points out some programatic variations and variations associated with residency periods of different length. Section three compares the relevance and emphasis ratings for similarities and discrepancies, providing some measures of curriculum relevance. The section concludes with a discussion of the data on current HA and PHA curricula as described by program directors.

CURRICULUM TAXONOMY USED IN QUESTIONNAIRES TO GRADUATES AND PROGRAM DIRECTORS

SUBJECT AREAS
1. General Administrative & Organization Theory. General theories of work, leadership, organization design and structure.
2. Applied Administrative & Organization Theory. Application of administrative theory to health service organizations.
3. Health Care Organization. The basic financial, organizational and delivery mechanisms for health care.
4. Medical/Nursing Practice. Medical concepts, terminology and treatment processes; roles of health personnel.
5. Public Health Administration. The role, organization and function of public health agencies.
6. Comprehensive Health Planning. Processes, techniques and issues in planning community health systems.
7. Financial Management. Planning, implementation and control of accounting, budgeting and investment processes.
8. Personnel Administration. Wage and salary administration, performance evaluation, staffing.
9. Industrial Relations. Concepts, implications and laws pertaining to labor organizations.
10. Interpersonal Skills. Human behavior in the organizational environment.
11. Information Systems/Computer Applications. Design and uses of information systems in health management and planning.
12. Quantitative Methods/Applied Statistics. Use of statistics, linear programming, queuing theory, etc. in decision making.
13. Economics. Basic theories of micro- or macroeconomics.
14. Research Methodology. Problem definition, research procedure and methods.
15. Health Law. Legal concepts and regulation in the health area.
16. Medical Sociology. Analysis of the social and cultural factors affecting health, illness and medical practice.
17. Epidemiology. Causation, distribution and control of disease in populations.
18. Government Relations/Political Science. Federal, state and local governmental roles in health policy, delivery, financing and regulation.

1. Curriculum Relevance

Relevance by Type of Educational Program

Table V-1 gives the frequency distribution and mean relevance ratings for the eighteen curriculum topic areas as judged by graduates of hospital/health administration and public health administration programs. The graduates in each group were distributed among various organizational settings and jobs as described in Chapters II, III and IV. The aggregations in Table V-1 are thus weighted by employment patterns as they existed at the time of the survey, insofar as there were differences in relevance among the various organizational settings. The latter, i.e., the specific differences in relevance associated with the ten organizational settings, are discussed subsequently.

The eighteen topic areas in the curriculum taxonomy were originally selected because they were believed to have some relevance for people pursuing careers in the health administration field broadly defined. In this study, only three topic areas received a mean score in excess of three (low relevance) in any organizational setting, confirming the belief that all of the topic areas had a degree of relevance for at least a portion of the respondent groups. Although the differences in mean relevance ratings among topic areas were small, the ratings did provide stable measures of relevance (and emphasis) because of the large sample sizes. For curriculum design

TABLE V-1

CURRICULUM RELEVANCE: FREQUENCIES AND MEAN RELEVANCE SCORES OF 18 CURRICULUM TOPIC AREAS BY TYPE OF PROGRAM

Topic Area	Relevance of Curriculum Topics by Type of Program[1]											
	Hospital/Health Administration Graduates						Public Health Administration Graduates					
	(1) High	(2) Moderate	(3) Low	(4) None	Mean	Rank	(1) High	(2) Moderate	(3) Low	(4) None	Mean	Rank
	(Percent)						(Percent)					
1. General Administrative Theory	56.9	35.3	7.3	.5	1.51	4	47.8	34.9	13.3	3.9	1.73	2.5
2. Applied Administrative Theory	56.3	36.6	6.3	.9	1.52	4	44.5	37.0	12.6	5.9	1.80	5
3. Health Care Organization	57.0	34.2	8.2	.6	1.52	4	46.5	35.4	12.6	5.5	1.77	4
4. Medical/Nursing Practice	32.0	48.9	17.0	2.1	1.89	9	37.1	27.8	23.3	11.8	2.10	10
5. Public Health Administration	10.4	31.9	47.3	10.5	2.58	17	34.0	35.2	26.1	4.7	2.02	7
6. Comprehensive Health Planning	37.4	39.1	19.8	3.7	1.90	10	31.7	38.5	20.2	9.5	2.08	9
7. Financial Management	71.8	20.3	6.7	1.2	1.37	1	35.1	31.9	19.5	13.5	2.12	12.5
8. Personnel Administration	44.9	38.5	14.0	2.6	1.74	8	33.2	30.0	22.1	14.6	2.18	14
9. Industrial Relations	27.1	40.2	24.0	8.7	2.14	12	11.6	22.3	33.5	32.7	2.87	18
10. Interpersonal Skills	65.4	29.2	4.9	.5	1.41	2	51.8	37.2	7.9	3.2	1.63	1
11. Information Systems/Computers	24.2	49.4	23.9	2.5	2.05	11	27.8	36.9	21.8	13.5	2.21	15
12. Quant. Methods/Applied Statistics	16.7	41.3	36.7	5.3	2.31	13	18.1	41.3	29.5	11.0	2.34	16
13. Economics	10.5	35.7	44.0	9.9	2.53	16	14.4	33.2	29.6	22.8	2.61	17
14. Research Methodology	21.6	33.8	36.2	8.4	2.31	14	34.1	30.2	26.6	9.1	2.11	11
15. Health Law	43.2	43.9	10.4	2.5	1.72	7	29.9	37.5	23.5	9.2	2.12	12.5
16. Medical Sociology	15.2	41.1	37.0	6.7	2.35	15	36.1	34.5	21.8	7.5	2.01	6
17. Epidemiology	4.3	20.6	52.9	22.2	2.93	18	34.1	32.5	26.3	7.1	2.06	8
18. Gov't Relations/Political Science	53.5	34.7	10.3	1.6	1.60	6	48.4	34.6	12.6	4.3	1.73	2.5
N =	(807)						(254)					

[1] Mid-point of ranks used where ties occurred.

purposes, where time and resources are limited, even a measure of relative importance is a valuable aid in determining how resources can be allocated most efficiently.

For health/hospital administration graduates, Financial Management was the topic area of highest relevance, with a mean rating of 1.37. Over 70 percent of respondents gave it a "score" of 1 (High). Interpersonal Skills ranked second, with 65 percent of respondents assigning it a "High" relevance score. General Administrative Theory, Applied Administrative Theory and Health Care Organization were next, all sharing third place with mean relevance ratings of 1.51-1.52.[1] Government Relations, Health Law and Personnel Administration followed in rank order, with the latter two topic areas in essentially the same position. Of lowest relevance for the group were Epidemology (75 percent of respondents judged it to be of low or no relevance to their jobs), Public Health Administration, Economics, Medical Sociology and Research Methodology.

The public health administration graduates did not accord any single topic area the same high relevance score given to Financial Management by HA graduates. Interpersonal Skills had the highest mean relevance rating (1.63), with 52 percent of respondents assigning it a score of 1. However, this was only slightly higher than the relevance ratings assigned to Government Relations, General and Applied

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[1]The rankings all proceed sequentially, i.e. from 1 to 18. However, in some cases the mean scores were identical and, therefore, so were the ranks. Where this occurred, the mid-point of the tied ranks were used, the conventional practice.

Administration and Health Care Organization. The least relevant scores were accorded to Industrial Relations, Economics and Quantitative Methods. All other topic areas were considered of high relevance by more than 25 percent of respondents.

The similarities and differences between the hospital/health administration and public health administration groups can be measured in a number of ways--comparison of means, comparison of the frequencies with which high relevance scores were assigned, comparison of ranks, etc. The particular method would depend on the purpose for which the comparison was to be made. The most general possible approach is taken here. (Whenever possible throughout this chapter, the raw data are presented so that the reader can make calculations and comparisons to suit his or her own needs.)

The topic areas which were of approximately the same relevance for HA and PHA graduates were: Interpersonal Skills, General and Applied Administrative Theory, Health Care Organization, Comprehensive Health Planning, Medical/Nursing Practice, and Economics. For both groups, these topics ranged from high to low relevance.

The biggest differences between the two groups were found in Financial Management, Epidemiology, Public Health Administration and Medical Sociology. It is these topic areas which serve primarily to distinguish between the two groups of graduates. In all other topic areas, the two groups were either similar or only moderately different with regard to the relevance measures used in the study.

Relevance by Type of Organizational Setting

The graduates worked in a variety of organizational settings although the number in long-term care administration was very small (16). Nevertheless, the data are presented for all settings since they may be of interest for purposes of curriculum design. In presenting and analyzing the data, it is useful to retain the distinction already established between organizations which provide personal medical services (hospitals, HMO's, etc.) and those which are health related but do not primarily provide personal services (health planning agencies, public health agencies, administrative and regulatory agencies, etc.). Accordingly, the data are grouped into these two major categories. Alternative groupings are, of course, possible should the reader wish to do so.

The rank order, based on mean relevance ratings, of all eighteen curriculum topic areas is presented by type of organizational setting in Table V-2. These data can be analyzed in many ways, and only the most comprehensive approach is taken here, consonant with the desire to offer those comparisons and contrasts most useful for curriculum design. However, the raw data (mean relevance ratings) are presented at the end of the chapter for those who wish to pursue them in greater detail, or use the information for other purposes.

The rows of Table V-2 provide information on the relevance of each topic area as judged by respondents in eleven different organizational settings. For example, General Administration Theory was

TABLE V-2

CURRICULUM RELEVANCE. RANK ORDER OF MEAN RATINGS IN 18 CURRICULUM TOPIC AREAS BY TYPE OF ORGANIZATIONAL SETTING[1]

Curriculum Topic Areas	Rank Order of Mean Relevance Scores by Organizational Setting[2]												
	Personal Medical Services						Health Related Agencies & Organizations						
	Short-Term Hospital	Long-Term Facility	Ambulatory Center	HMO	Other	All Personal Med. Services	Public Health	Health Planning	Research/ Consulting	Med. School/ University	Regulatory/ Admin.	Other	All Health Related Orgs.
1. General Administrative Theory	3	1	5	2.5	2	3	3	9	9	5	6	5	5
2. Applied Administrative Theory	4	3.5	3.5	4	6	4	2	11	10	6	4.5	4	4
3. Health Care Organization	5	9	6	2.5	3	5	6	3	5	3	3	1	3
4. Medical/Nursing Practice	9	6	9	10	12	9	13	13	12	9	7	9	11.5
5. Public Health Administration	17	11	13	16	13	16	4	7	16	8	4.5	18	11.5
6. Comprehensive Health Planning	10	12	15	13.5	8.5	10	10	1	6.5	11.5	8.5	7	6
7. Financial Management	1	3.5	1.5	5.5	5	1	8.5	5	4	14	11	6	7.5
8. Personnel Administration	6	5	3.5	7	7	6	14	17	15	16	15	15	15
9. Industrial Relations	11	10	16	15	16	11	18	18	17	18	18	17	18
10. Interpersonal Skills	2	2	1.5	1	1	2	1	4	3	1	2	3	2
11. Information Systems/Computers	12	13	7	8.5	8.5	12	15	15	8	13	12	12	13
12. Quant. Methods/Applied Statistics	13	15.5	14	13.5	15	13.5	16	14	6.5	10	17	11	14
13. Economics	16	14	18	17	18	17	17	7	14	17	16	13	16
14. Research Methodology	15	17	12	11	14	15	12	10	2	2	13	8	7.5
15. Health Law	7	7	10	8.5	10	8	11	7	11	15	8.5	10	9.5
16. Medical Sociology	14	15.5	11	12	11	13.5	8.5	12	13	7	10	14	9.5
17. Epidemiology	18	18	17	18	17	18	7	16	18	11.5	14	16	17
18. Gov't Relations/Political Science	8	8	8	5.5	4	7	5	2	1	4	1	2	1
N =	(598)	(16)	(36)	(32)	(45)	(407)	(72)	(38)	(59)	(75)	(42)	(84)	(370)

[1]See the end of the chapter for the mean ratings themselves.

[2]Mid-point of ranks used where ties occurred.

perceived to be of high relevance in all settings except two, health planning agencies and consulting or research firms. Quantitative Methods/Statistics, on the other hand, were considered of low relevance in all settings except consulting and research organizations. The columns indicate the relative importance (relevance) of each of the eighteen curriculum topics to respondents working in a particular organizational setting. Several examples of how the data might be interpreted and used are given below. Many other "cuts" are possible, depending on the interests and needs of the reader.

Most Relevant Topic Areas

Based on an examination of the means, it appeared most useful to divide the eighteen topic areas into three nominal groups roughly indicating upper, middle and lower categories of relevance. The upper and lower categories each contain five topic areas, with the mid-range composed of eight. Table V-3 lists, in rank order, the five top (most relevant) curriculum areas for the various organizational settings, grouped into the two major categories of Personal Health Services and Health Related Organizations.

From a curriculum design point of view, it is of interest to isolate those areas considered of highest relevance for many different organizational settings as opposed to the topic areas which appeared to be of unique importance to a particular setting. Many programs distinguish these via design of core courses and specialty tracks or concentration areas. Among organizations which deliver

TABLE V-3

THE FIVE MOST RELEVANT CURRICULUM AREAS BY ORGANIZATIONAL SETTING[1]

	Personal Medical Service Organizations					
	Short-Term Hospitals	Long-Term Facilities	Ambulatory Center	HMO	Other Personal Serv.	All Personal Med. Service
Rank 1	Financial management	General admin. theory	Financial management[a]	Interpersonal skills	Interpersonal skills	Financial management
Rank 2	Interpersonal skills	Interpersonal skills	Interpersonal skills[a]	Gen. Admin. theory[a]	Gen. Admin theory	Interpersonal skills
Rank 3	Gen. admin. theory	Applied[a] admin.	Applied admin.[b]	Health Care organization[a]	Health Care organization	Gen. admin. theory
Rank 4	Applied admin.	Financial[a] management	Personnel[b] admin.	Applied admin.	Government relations	Applied admin.
Rank 5	Health Care organization	Personnel admin.	General admin. theory	Financial[b] management Government relations[b]	Financial management	Health care organization

	Health Related Organizations and Agencies						
	Public Health	Health Planning	Consult/ Research	Med. Sch./ Univ.	Regulatory Admin. Agcy.	Other	All Health Related
Rank 1	Interpersonal relations	Health planning	Government relations	Interpersonal relations	Government relations	Health Care organizations	Government relations
Rank 2	Applied admin.	Government relations	Research	Research	Interpersonal skills	Government relations	Interpersonal skills
Rank 3	General admin. theory	Health care organizations	Interpersonal relations	Health care organizations	Health care organizations	Interpersonal skills	Health care organization
Rank 4	Public health	Interpersonal relations	Financial management	Government relations	Applied admin.[a]	Applied admin.	Applied admin.
Rank 5	Government relations	Financial management	Health care organization	General admin. theory	Public health[a]	General admin. theory	General admin. theory

[1]Superscripts indicate tied mean scores: rankings with same superscripts could be interchanged.

personal medical services, three topic areas appeared among the "top five" for all five organizational settings (short-term hospitals, long-term facilities, etc). The common areas were Interpersonal Skills, General Administrative Theory, and Financial Management. Applied Administrative Theory was listed in four of the five settings and Health Care Organization in three. Personnel Administration appeared in only two settings, and Government Relations in one. These frequencies are made more apparent in Tables V-4A and B.

Among the six different types of health related organizations, two curriculum topic areas appeared uniformly among the "top five"--Interpersonal Skills and Government Relations. It might be pointed out here that Interpersonal Skills was the only curriculum area (if, in fact, it can be so considered) that appeared among the five most relevant in each and every different organizational setting. Moreover, it was given rank one or two in eight different settings. No other topic area achieved this degree of universality or high level of relevance. Clearly this was considered a critical skill among virtually all respondents, and methods of selecting for such skills, followed by educational programs to enhance them, should be carefully considered by educators in the field. (Later sections of this report examine the emphasis which programs placed on Interpersonal Skills, and look at some subjective ratings on the adequacy of that preparation.)

Compared with personal medical service organizations, topic areas included in the top five for health related organizations indicated greater relevance for Government Relations, and less relevance

TABLE V-4A

RANK COMPARISON OF MOST RELEVANT AND LEAST RELEVANT TOPIC AREAS BY ORGANIZATIONAL SETTING

Part A--Personal Medical Services[1]

	Short-Term Hospital	Long-Term Facility	Ambulatory Center	HMO	Other	All Personal Med. Services
I--Most relevant topic areas--Ranks 1-5						
Interpersonal Skills	2	2	1.5	1	1	2
General Admin. Theory	3	1	5	2.5	2	3
Financial Management	1	3.5	1.5	5.5	5	1
Applied Admin. Theory	4	3.5	3.5	4		4
Health Care Organization	5			2.5	3	5
Personnel Administration		5	3.5			
Government Relations				5.5	4	
II--Least relevant topic areas--Ranks 14-18						
Epidemiology	18	18	17	18	17	18
Economics	16	14	18	17	18	17
Quantitative Methods		15.5	14	14	15	13.5
Research	15	17			14	15
Industrial Relations			16	15	16	
Public Health	17			16		16
Medical Sociology	14	15.5				13.5
Health Planning			15			

[1]Mid-point of ranks used where ties occurred.

TABLE V-4B

RANK COMPARISON OF MOST RELEVANT AND LEAST RELEVANT TOPIC AREAS BY ORGANIZATIONAL SETTING

Part B - Health Related Agencies and Organizations[1]							
Curriculum Topic Areas	Public Health	Health Planning	Research Consulting	Medical School/ Univ.	Regulatory/ Admin. Agency	Other	All Health Related
I-Most relevant topic areas - Ranks 1-5							
Interpersonal Skills	1	4	3	1	2	3	2
Government Relations	5	2	1	4	1	2	1
Health Care Organization		3	5	3	3	1	3
General Admin. Theory	3			5		5	5
Applied Admin. Theory	2				4.5	4	4
Financial Management		5	4				
Public Health	4				4.5		
Research			2	2			
Health Planning		1					
II-Least relevant topic areas - Ranks 14-18							
Industrial Relations	18	18	17	18	18	17	18
Personnel Administration	14	17	15	16	15	15	15
Epidemiology		16	18		14	16	17
Economics	17		14	17	16		16
Quantitative Methods	16	14			17		14
Information Systems	15	15					
Public Health			16			18	
Health Law				15			
Medical Sociology						14	
Financial Management				14			

[1]Mid-point of ranks used where ties occurred.

for Administrative Theory (either General or Applied) and Financial Management. Respondents in health planning settings assigned a uniquely high rank to Health Planning, while those in consulting/ research firms and universities did the same for Research. The "profiles" for these latter two settings looked very similar: they were also the only settings in which neither General nor Applied Administration were listed at all among the top five.

Least Relevant Topic Areas (Ranks 14-18)

Considerable unanimity emerged from the analysis of the lower or "least" relevant set of curriculum topic areas. Among respondents working in personal health care organizations (Table V-4A), opinion was unanimous as to the relatively low relevance of Epidemiology and Economics. (Mean scores of items ranked eighteenth ranged from 2.6 to 3.6 on the 4-point scale described above.) The topic area Quantitative Methods made the least relevant list for all settings except hospitals. Research and Industrial Relations were considered of low relevance in three of the five settings, Public Health and Medical Sociology in two, and Health Planning in one.

Among respondents in the six types of health related organizations (Table V-4B), Industrial Relations and Personnel Administration were the only unanimous choices for low relevance, but Economics and Epidemiology were not too far behind as they appeared in four of the six settings. Quantitative Methods was listed in three of the settings.

From a curriculum design point of view, the frequency with

which Epidemiology, Economics and Quantitative Methods appeared as of relatively low relevance in almost all organizational settings must give rise to some serious thought. They are, as will be seen shortly, subjects which receive considerable emphasis in many of the programs being studied here. Finally, one cannot resist observing that Financial Management made the "least relevant" list in only one setting--university/medical school.

In summary, the descriptive data presented here and in the appendix table should be of interest to educators concerned with curriculum design. It confirms the relevance of many topics currently taught in health and/or public health administration programs, and even suggests those curriculum areas which are of broadest relevance to different organizational settings and those which appear to be of unique relevance to particular settings. The overwhelming importance of Interpersonal Skills should certainly engage the attention of educators, as should the rather low relevance ratings of Epidemiology, Economics and Quantitative Methods. Whether the latter reflects the design and quality of teaching in these courses, or is truly a reflection of the relevance of the course content to the applied setting, cannot be resolved in the context of this study.

Additional analyses of the data can easily be made from other points of reference, should the reader wish to do so.

2. Curriculum Emphasis

Emphasis by Type of Educational Program

Although the ratings of curriculum emphasis were of primary interest for this study in regard to their relationship with the relevance ratings, they offer some useful comparisons and contrasts in and of themselves. The emphasis ratings were, of course, retrospective, reflecting graduates' perceptions of their Master's level programs at the time they were enrolled four to six years earlier. The emphasis ratings are discussed first by type of program. Then some interesting variations in ratings among programs, including the effect of the residency period, are presented.

The main emphasis scores for each topic area are listed and ranked in Table V-5. The data are presented for all respondents together, as well as for the graduates of hospital/health administration programs and public health administration programs. The health planning group is also included, as a matter of interest, but it must be reiterated that the graduates of only two programs are represented.

In examining the data on emphasis, it is helpful to use the same nominal groups developed for the analysis of curriculum relevance in the preceding section. The five curriculum topic areas of highest emphasis for all respondents together were, in rank order: Health Care Organization, General Administrative Theory, Applied Administrative Theory, Health Planning, and Quantitative Methods. The topic areas of

TABLE V-5

MEAN EMPHASIS RATINGS AND RANK ORDER OF EIGHTEEN CURRICULUM TOPIC AREAS, BY TYPE OF PROGRAM

Curriculum Topic Area	Mean Emphasis Ratings and Rank Order							
	Graduates of All Programs		Hospital/Health Administration Graduates		Public Health Administration Graduates		Health Planning Graduates	
	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
1. General Administrative Theory	1.53	2	1.43	1	1.75	5	2.57	10.5
2. Applied Administrative Theory	1.72	3	1.63	3	1.92	7	2.57	10.5
3. Health Care Organization	1.52	1	1.46	2	1.69	2	1.65	3
4. Medical/Nursing Practice	2.59	16	2.53	14	2.76	15	2.96	15
5. Public Health Administration	2.35	11	2.55	15	1.72	3.5	2.13	6.5
6. Comprehensive Health Planning	1.97	4	2.01	6	1.72	3.5	1.35	1
7. Financial Management	2.42	12.5	2.22	11	2.96	16	3.39	16
8. Personnel Administration	2.77	17	2.66	16	3.02	17	3.78	17
9. Industrial Relations	2.84	18	2.69	17	3.22	18	3.83	18
10. Interpersonal Skills	2.06	6	1.97	4	2.27	11	2.70	12
11. Information Systems/Computers	2.54	15	2.52	13	2.61	14	2.39	8
12. Quant. Methods/Applied Statistics	2.00	5	1.99	5	2.04	8	1.87	4
13. Economics	2.42	12.5	2.41	12	2.53	13	1.57	2
14. Research Methodology	2.09	8	2.11	7	2.05	9	2.13	6.5
15. Health Law	2.22	10	2.14	9	2.41	12	2.87	14
16. Medical Sociology	2.15	9	2.17	10	2.06	10	2.52	9
17. Epidemiology	2.50	14	2.79	18	1.56	1	2.74	13
18. Gov't Relations/Political Science	2.07	7	2.13	8	1.91	6	1.96	5
N =	1,090		814		253		23	

lowest emphasis were: Industrial Relations, Personnel Administration, Medical/Nursing Practice, Information Systems, and Epidemiology. The remaining eight topic areas fell in the mid-range with mean emphasis scores between 2.00-2.50.

The emphasis ratings for the different types of Master's programs had interesting similarities as well as differences. The five areas of highest emphasis in HA programs contained two topic areas also found in the high emphasis group for PHA programs--General Administrative Theory and Health Care Organization. The other three elements were different. Programs in hospital administration, in the opinion of graduates, also emphasized Applied Administration, Interpersonal Skills, and Quantitative Methods. Public health administration programs were remembered by their alumni as having given heavy emphasis to Epidemiology, Health Planning, and Public Health Administration. Graduates of the two health planning programs assigned the highest emphasis ratings to Health Planning, Economics, Health Care Organization (the only element accorded high emphasis in all three types of programs), Quantitative Methods, and Government Relations. The areas of highest and lowest emphasis are presented in Table V-6 in rank order, for ease of reference. Many other comparisons can be made from the data in Table V-5 according to the interests of the reader.

The aggregate figures just presented do not adequately reflect the considerable degree of diversity which existed among the individual programs included in the study. A brief discussion of these variations is warranted, although no programs can be identified by name for

TABLE V-6

GRADUATES' RANKINGS OF HIGHEST AND LOWEST AREAS OF CURRICULUM EMPHASIS, BY TYPE OF PROGRAM

Rank	Graduates of All Programs	Hospital/Health Administration Graduates	Public Health Administration Graduates	Health Planning Graduates
	Areas of Highest Emphasis			
Rank 1	Health Care Organization	General Administrative Theory	Epidemiology	Health Planning
Rank 2	General Administrative Theory	Health Care Organization	Health Care Organization	Economics
Rank 3	Applied Administrative Theory	Applied Administrative Theory	Health Planning[1]	Health Care Organization
Rank 4	Health Planning	Interpersonal Skills	Public Health[1] Administration	Quantitative Methods
Rank 5	Quantitative Methods	Quantitative Methods	General Administrative Theory	Government Relations
	Areas of Lowest Emphasis (Ranks 18-14)			
Rank 18	Industrial Relations	Epidemiology	Industrial Relations	Industrial Relations
Rank 17	Personnel Administration	Industrial Relations	Personnel Administration	Personnel Administration
Rank 16	Medical/ Nursing Practice	Personnel Administration	Financial Management	Financial Management
Rank 15	Information Systems	Public Health Administration	Medical/ Nursing Practice	Medical/ Nursing Practice
Rank 14	Epidemiology	Medical/ Nursing Practice	Information Systems	Health Law
N =	~ 1,100	~ 815	~ 260	~ 23

[1]Tied for third and fourth ranks.

reasons of confidentiality.

Differences in Emphasis Among Individual Programs

Hospital/Health Administration Programs

Analysis of the responses from graduates on a program-by-program basis showed both constancy and variation among individual programs, at least as perceived by their alumni. Graduates, for example, were in agreement as to the high curriculum emphasis placed on Health Care Organization by every one of the thirty HA programs. This topic area was ranked between 1 and 5 for every program without exception. Slight variation was apparent with regard to administrative theory: General Administrative Theory was ranked below 5 in emphasis for three of the thirty programs and Applied Theory fell below 5 in six instances. Interpersonal Skills, among the five areas of highest emphasis for all HA respondents considered together, was often not so ranked for individual programs. Graduates of thirteen programs assigned mid-range emphasis to that important topic area, and in four cases it was ranked among the five areas of lowest emphasis.

Quantitative Methods/Applied Statistics, ranked fifth in program emphasis by all HA respondents together, also showed considerable variation among individual programs. In three cases it was accorded rank 1, and among slightly more than half of the programs it was ranked among the top five areas of emphasis. In nine programs, however, it fell between ranks 10 and 18.

Some uniformity was apparent with regard to topic areas of lowest emphasis. Epidemiology and Public Health Administration were

ranked of low emphasis by the graduates of all but six of the thirty HA programs. (Most, but not all, of the programs in which they received higher emphasis were located in schools of public health.) Industrial Relations and Personnel Administration were similarly ranked, i.e. of low emphasis for all programs except five or six. Medical/Nursing Practice was among the five areas of lowest emphasis for more than half the programs, but achieved ranks 8-13 in thirteen cases.

Interesting program variations were also found among those topic areas whose aggregate ranking fell in the mid-range of emphasis. Financial Management, for example, was ranked eleventh by all HA respondents together, but it was ranked of high emphasis (ranks 1-5) by the respondents of four programs, only two of them located in schools of business. Economics, ranked twelfth by all respondents, was given an emphasis ranking between 1 and 5 by the graduates of six programs. Government Relations/Political Science was stressed, i.e., assigned emphasis ranks of 1-5, by graduates of six programs, Research Methodology by three, and Information Systems/Computer Applications by two.

Public Health Administration Programs

The five curriculum topic areas given the highest emphasis ranking by graduates of PHA programs also showed some variability by school. Epidemiology was ranked among the top five for all but two of the twelve programs but in no case did it fall below rank 8. The same

was true of Health Care Organization. Health Planning was only slightly more variable--it was ranked thirteenth in emphasis by respondents of one program, but between 1 and 8 by all others. Respondents for all but one program gave Public Health Administration emphasis rankings between 1 and 7. Nine of the twelve programs were considered to have given top emphasis to General Administrative Theory.

Some of the topic areas of lowest emphasis were uniform across all PHA programs. Both Personnel Administration and Industrial Relations were ranked 14-18 by respondents of all programs without exception. Financial Management, ranked sixteenth by all PHA respondents together, varied somewhat among individual programs but in no case did it receive an emphasis ranking higher than 9. Medical/Nursing Practice also showed only slight variation from its overall ranking of 15 except for one program where it was accorded a rank of 2. Program-by-program rankings for Information Systems/Computer Applications consistently fell between 11 and 17 with one exception, where it was ranked sixth.

Quantitative Methods/Applied Statistics, ranked eighth in emphasis overall, ranged on a program-by-program basis from 2 to 12, with respondents of three programs placing it among the "top five." Interpersonal Skills ranged very narrowly around an aggregate ranking of 11 except for two programs where it was given ranks 6 and 7.

Differences in Emphasis Associated with Length of the Residency Period

One of the major differences among the HA and PHA Master's

level programs included in the study was the length of the residency period. It varied from 0 to 12 months. The residency was almost universally traded off against academic time, i.e., the longer the residency, the shorter the academic period, with the latter ranging from 12 to 20 months. Moreover, the residency itself is presumed to emphasize or reinforce certain knowledge/skill areas which are somewhat different from those emphasized in the academic portion of the curriculum. To see whether important differences in emphasis among programs (as perceived by graduates) were, in fact, associated with the residency, a number of cross-tabulations were undertaken. For this purpose, the different residency periods were classified into two groups: short (one month or less through six months) and long (seven through eleven months). The group which served no residency was omitted from the analysis.

Residency Length and Academic Specialization

It is reasonable to suppose that longer academic time provides more opportunities for sub-specialization or concentration in one or more areas within generic Master's level programs. This would be particularly true of specialization along functional lines, e.g. financial management, information systems, personnel relations, etc. Specialization along institutional lines, for example, mental health administration or long-term care, could probably be accomplished by either academic concentration or a long residency in the appropriate type of institution. In any case, if specialization is a trend to be

encouraged, as many people believe, then validation of the supposition is of some interest.

According to the data provided in this study, graduates of both HA and PHA programs who served residencies of less than six months did have more opportunities to specialize than graduates whose residencies ran more than six months. Seventy-one percent of respondents with short residencies had curricula which offered concentration areas, as opposed to 58 percent of respondents serving long residencies. The frequency with which respondents actually did specialize was even more marked: almost 70 percent of respondents with short residencies specialized, compared with fewer than 50 percent of those serving long residencies.

Residency Length and Curriculum Emphasis

It was also hypothesized that the longer academic time associated with the shorter residency would be reflected in higher emphasis ratings on academic subjects and lower emphasis ratings on those topic/skill areas usually associated with field experience or on-the-job training. This did not always prove to be the case for the health/hospital administration graduates, the only group tested. Respondents with shorter residencies perceived their programs as giving significantly higher emphasis to Information Systems/Computer Applications, Quantitative Methods/Statistics, Economics, Medical Sociology, Health Planning and Government Relations than did those who served long residencies. (It may be disturbing to some readers to note that four

out of six of these topic areas were judged to be of relatively low relevance in most job settings by this same group of respondents.) Respondents who had served long residencies gave significantly higher emphasis ratings to their curricula in the areas of General and Applied Administrative Theory, Medical/Nursing Practice and Personnel Administration. All of these findings were consistent with the hypothesis.

Those areas in which no significant differences in emphasis were found between those serving short and long residencies were: Health Care Organization, Financial Management, Industrial Relations, Interpersonal Skills, Research Methods, and Health Law.[1] It had been theorized that short residencies would be associated with higher emphasis ratings in all the topic areas just listed except for Industrial Relations and Interpersonal Skills, which can be learned on-the-job, but such did not prove to be the case. Two possible explanations for these findings suggest themselves. First, all programs, regardless of residency length, could give the same academic emphasis (either high, moderate or low) to certain topic areas, e.g., common core subjects. The length of the academic period would thus not have a significant effect. Alternatively, the knowledge/skill in question could be emphasized to equal degree in either the academic or residency setting, again leading to no significant differences between the two types of programs. The data provided in the study were not sufficient

[1]Public Health Administration and Epidemiology are not listed because they are not often associated with health/hospital administration curricula. However, they both fell into this category, i.e., no significant differences.

to unequivocally validate one of these explanations over the other, but some informed speculations are possible.

Health Care Organization was almost universally accorded high emphasis in program curricula and data from the program director's survey (discussed in the next section) indicates that considerable academic time was devoted to this topic. It seems likely that the first explanation--equal academic emphasis across programs--was operative here. Financial Management was judged to have been only moderately emphasized by respondents from all health/hospital administration programs. (It ranked eleventh in emphasis among eighteen topic areas.) Those respondents who served long residencies listed Financial Management as their curriculum's weakest area somewhat more frequently than did those with short residencies (44 versus 34 percent, a statistically significant different at the .05 level). Since some aspects of financial management were covered in virtually all of the programs, it seems likely that Financial Management was learned primarily in the academic setting but that graduates who had the longer academic period did not perceive a significantly higher degree of emphasis in this area.

Industrial Relations was judged of low emphasis for almost all programs (ranked seventeenth out of eighteen), and may well have been of low emphasis in both the academic and residency settings. It is more difficult to explain Interpersonal Skills in this way since there is a strong presumption that this is a skill most often developed on-the-job. All respondents considered it of high relevance regardless

of the organization in which they were located, and relatively few (6 percent) thought it was the curriculum's weakest area. Actually, respondents judged their programs very differently with regard to emphasis on Interpersonal Skills. Among the thirty programs, twelve were considered to give it high emphasis, thirteen only moderate, and five low. Whatever the causes of these differences, they do not seem to be associated with residency length.

Research Methods, it was assumed, would be given higher emphasis ratings by graduates in the longer academic programs, but it was not. Many residencies, both short and long, required the completion of research projects so it may well be that these skills were emphasized with equal weight in both the academic and residency situations.

Health Law was judged to be moderately emphasized in the vast majority of programs (24 out of 30) regardless of residency length. It seems more likely that academic curricula were fairly uniform in the weight they assigned to this topic area.

3. Comparison of Relevance and Emphasis Ratings

While the mean relevance and emphasis ratings were individually discussed in the preceding sections, the first portion of this section examines the relationship between the two ratings as one important measure of the relevance of curricula in health/hospital and public health administration programs. The underlying assumption of the analysis is that a completely relevant curriculum would produce

relevance and emphasis ratings that matched: there would be no important differences between the two ratings in any topic area, whether the area was perceived to be of high or low relevance. Thus, the existence of large discrepancies between the two ratings in any topic area could, in some cases at least, suggest opportunities for increasing the relevance of curricula. The analysis involves several important questions of statistical validity--response bias, independence of emphasis and relevance ratings, and the types of variance included in the comparisons. In order not to unduly disrupt the discussion, the more technical aspects of the statistical analyses have been treated in an appendix to this chapter. The raw data--mean scores, standard deviations, and sample sizes--have also been included for the interested reader.

The second part of this section presents the data from the survey of program directors which described the current curricula of HA and PHA programs. It provides summary statistics on the amount of time actually devoted to the various curriculum topic areas by the respondent programs in 1977. The data are of considerable interest in themselves and also as a source of comparison with graduates emphasis and relevance ratings.

Graduates' Ratings of Relevance and Emphasis

The differences between curriculum emphasis and relevance of the curriculum to the job are summarized in Tables V-7A and B for HA and PHA graduates respectively. Column 1 of each table gives the mean

relevance rating for each of the eighteen curriculum topic areas (presented earlier), arranged in rank order from highest to lowest relevance. The mean emphasis ratings are entered in Column 2. The differences between the relevance and emphasis means--the main focus of interest for the analysis--are presented in Column 3. Both of the mean ratings, and consequently the differences as well, were based on the responses of all graduates in each group, approximately 802 in the HA group and 250 in the PHA group. The fourth column provides a measure of the statistical significance of the differences between the relevance and emphasis ratings, the results of t-tests for each topic area.[1]

A positive difference between relevance and emphasis in Column 3 implies that mean ratings of curriculum emphasis exceeded mean ratings of job relevance, while a negative sign indicates the opposite, i.e. ratings of relevance exceeded emphasis ratings.[2] Although many of the differences between relevance and emphasis were not large (all were less than ± 1.00) examination of the t-test results reveals that 17 out of 18 of the HA comparison and 11 out of 18 of the PHA

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[1]The variance terms in the analysis thus include the total group variance which is a function of both variability among individual respondents within a program and variability across programs. The reader should note that the absolute magnitude of the t value is a function of the sample size.

[2]The ratings ranged from 1 = High to 4 = None, and emphasis ratings were subtracted from relevance ratings. Thus a topic area of high relevance, e.g., a mean rating of 1.50, and moderate emphasis, perhaps 2.02, would give rise to a difference of - .52.

TABLE V-7A

GRAND-MEAN DIFFERENCES BETWEEN RELEVANCE AND EMPHASIS RATINGS OF GRADUATES, AND TESTS OF SIGNIFICANCE: HOSPITAL/HEALTH ADMINISTRATION GRADUATES[1]

Topic Areas Arranged in Rank Order by Relevance Rating	Mean Relevance Rating	Mean Emphasis Rating	Relevance minus Emphasis	t-Test (t Value)[2]
	(1)	(2)	(3)	(4)
Highest Relevance				
7. Financial Management	1.37	2.22	- .85	- 23.73
10. Interpersonal Skills	1.41	1.97	- .56	- 15.39
1. General Administrative Theory	1.51	1.43	.08	2.55
2. Applied Administrative Theory	1.52	1.63	- .12	- 3.46
3. Health Care Organization	1.52	1.46	.06	2.05
Mid-Level Relevance				
18. Government Relations	1.60	2.13	- .53	- 13.89
15. Health Law	1.72	2.14	- .42	- 5.20
8. Personnel Administration	1.74	2.66	- .92	- 22.90
4. Medical/Nursing Practice	1.89	2.53	- .64	- 16.95
6. Comprehensive Health Planning	1.90	2.01	- .11	- 2.71
11. Information Systems/Computers	2.05	2.52	- .47	- 12.04
9. Industrial Relations	2.14	2.69	- .55	- 12.70
12. Quantitative Methods/Statistics	2.31	1.99	.32	7.92
Lowest Relevance				
14. Research Methods	2.31	2.11	.20	4.75
16. Medical Sociology	2.35	2.17	.18	4.49
13. Economics	2.53	2.41	.12	2.73
5. Public Health Administration	2.58	2.55	.03	.69
17. Epidemiology	2.93	2.79	.14	3.51

[1] $N \geq 802$

[2] t based on total group variance. $t\ .05 \geq 1.96$; $t\ .01 \geq 2.58$

comparisons yielded statistically significant differences. The results for the HA and PHA groups are discussed in turn below.

Hospital/Health Administration Graduates. For the hospital/health administration graduates, there were statistically significant differences between relevance and emphasis ratings in all but one topic area, as seen in Table V-7A. However, only the nine largest differences were of sufficient magnitude to be of any practical significance relative to recommendations for curriculum change. In examining a curriculum for its relevance, most weight must be attached to significant discrepancies associated with topic areas of high relevance. Nevertheless, discrepancies among topic areas of moderate or low relevance are also of interest, as they may indicate excessive curriculum time, perhaps at the expense of more relevant studies, or opportunities to improve preparation in important, if not crucial, knowledge/skill areas.

Among the five topic areas of highest relevance for hospital/health administration graduates there were two with large discrepancies between job relevance and curriculum emphasis. The two areas were Financial Management and Interpersonal Skills. In both cases, the differences were negative, meaning that relevance exceeded emphasis ratings by very significant margins.

Among the eight topic areas of mid-level relevance, all but one showed significant discrepancies in the same direction, i.e., relevance greater than emphasis. In descending order of importance they were: Personnel Administration, Medical/Nursing Practice,

Government Relations, Industrial Relations, Information Systems/Computers, Health Law, and Health Planning. The difference between the emphasis and relevance ratings for Quantitative Methods was also significant but had a positive value, meaning that curriculum emphasis had exceeded job relevance in the perceptions of responding graduates.

The five topic areas of lowest relevance for this group all showed positive discrepancies (emphasis greater than relevance). With one exception the differences were statistically significant, but they were of such small magnitude relative to the above as to be of little practical significance.

Public Health Administration Graduates. As described in Section 1, the relevance ratings of PHA graduates differed from those of hospital/health administration graduates in a number of respects, reflecting the fact that they go into different organizational settings and have different types of jobs and job responsibilities. It was not surprising, therefore, to find a somewhat different pattern of discrepancies between emphasis and relevance ratings for this group. As Table V-7B shows, the highest relevance ratings were associated with Interpersonal Skills, General Administrative Theory, Government Relations, Health Care Organization and Applied Administrative Theory. In these important topic areas, relevance and emphasis ratings were well-matched--in fact there were no statistically significant differences--in all but one area. The single exception was Interpersonal Skills, where PHA graduates gave a high rating to relevance, and a

TABLE V-7B

GRAND-MEAN DIFFERENCES BETWEEN RELEVANCE AND EMPHASIS RATINGS OF GRADUATES, AND TESTS OF SIGNIFICANCE: PUBLIC HEALTH ADMINISTRATION GRADUATES[1]

Topic Areas Arranged in Rank Order by Relevance Rating	Mean Relevance Rating	Mean Emphasis Rating	Relevance minus Emphasis	t-Test (t Value)[2]
	(1)	(2)	(3)	(4)
Highest Relevance				
10. Interpersonal Skills	1.62	2.27	- .65	- 8.68
1. General Administrative Theory	1.73	1.75	- .01	- .17
18. Government Relations	1.73	1.91	- .18	- 2.42
3. Health Care Organization	1.77	1.69	.08	1.15
2. Applied Administrative Theory	1.80	1.92	- .12	- 1.60
Mid-Level Relevance				
16. Medical Sociology	2.01	2.06	- .06	- .68
5. Public Health Administration	2.02	1.72	.30	4.06
17. Epidemiology	2.06	1.56	.50	6.91
6. Comprehensive Health Planning	2.08	1.72	.35	4.48
4. Medical/Nursing Practice	2.10	2.77	- .67	- 7.64
14. Research Methodology	2.11	2.05	.06	.65
15. Health Law	2.12	2.41	- .29	- 3.61
7. Financial Management	2.12	2.96	- .85	- 10.15
Lowest Relevance				
8. Personnel Administration	2.18	3.02	- .84	- 9.71
11. Information Systems/Computers	2.21	2.61	- .40	- 4.73
12. Quantitative Methods/Statistics	2.33	2.03	.30	3.87
13. Economics	2.61	2.53	.08	.88
9. Industrial Relations	2.87	3.22	- .35	- 4.29

[1] $N \geq 250$

[2] t based on total group variance. $t\ .05 \geq 1.97$; $t\ .01 \geq 2.60$

considerably lower rating to curriculum emphasis.

Among the eight topic areas of mid-level relevance, all but two showed significant discrepancies. The largest differences between relevance and emphasis ratings were associated with Financial Management and Medical/Nursing Practice. Both of these were negative differences, i.e., relevance was rated higher than emphasis. Epidemiology, Health Planning, and Public Health Administration showed somewhat smaller discrepancies (but still of both statistical and practical significance) in the opposite direction, i.e., curriculum emphasis exceeded job relevance. Health Law showed the smallest significant difference, with relevance exceeding emphasis.

Four of the five topic areas of lowest (relative) job relevance showed "mis-matches." The largest discrepancies were associated with Personnel Administration, Information Systems/Computer Applications, and Industrial Relations, all of which reflected higher relevance than emphasis ratings. Quantitative Methods/Applied Statistics showed a significant difference in the opposite direction, i.e., emphasis greater than relevance.

A number of commonalities stand out across both HA and PHA programs. Although the topic areas differed in degree of relevance for graduates of the two types of programs, both groups agreed that relevance to the job exceeded curriculum emphasis by significant margins in Interpersonal Skills, Financial Management, Personnel Administration, Medical/Nursing Practice and Information Systems/Computers. They also agreed that curriculum emphasis in Quantitative

Methods/Applied Statistics and for PHA graduates only, Epidemiology, were significantly greater than relevance to the job.

Classroom Time versus Relevance and Emphasis Ratings

In order to establish the relevance of Master's level curricula in hospital/health and public health administration programs, the study design required a survey of graduates who had been working in the field for three to five years and were well launched on their professional careers. Graduates assigned relevance ratings to the various curriculum topic areas with reference to their job at the time of the survey. The emphasis ratings, however, were retrospective: they required respondents to characterize their Master's level programs as of the time they were enrolled which, for some respondents, was as much as five to six years earlier.

The preceding analysis showed how well the relevance and emphasis ratings matched, according to the memories and perceptions of the graduates. Some discrepancies emerged which, in a few cases, suggested the need for curriculum change. It was, therefore, of considerable interest to have a more current view of curricula and to see how that view related to graduates' relevance and emphasis ratings.

The survey of program directors was designed to provide information which would be of use for such an analysis. Each director was asked to describe the curriculum of his/her program in detail, so that classroom time in each of the eighteen curriculum topic areas could be calculated, classroom time being the proxy measure for

emphasis. Directors of public health administration programs did not provide sufficiently detailed descriptions of their curricula for the analysis, but there is a brief discussion of the very limited results at the end of this section. The survey of hospital/health administration programs yielded more complete data. A discussion of the procedures and findings follows.

Hospital/Health Administration Program Curricula

Seventeen out of forty-four directors of programs in health/hospital administration completed the survey form which asked for a description of the curriculum of their programs.[1] The respondents were located in schools of public health (3), business (4), medicine and allied health (6) and "other"--independent, joint, etc. (4). For each program, individual courses, either required or highly recommended, were listed for the "generalist" (as opposed to specialist) student, and taxonomy codes were assigned by the program directors to establish comparability across programs.[2] Even with the common taxonomy, however, it was necessary to make a number of adjustments in order to develop uniform units of curriculum time.

As the first step in the adjustment process, credit hours in the various topic areas were computed as a

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[1] Twenty-seven of the forty-four program directors responded to the questionnaire, but only seventeen provided complete curriculum descriptions. Sixteen of the seventeen programs had been included in the survey of graduates.

[2] Three programs gave their hospital administration curriculum as they had no "generalist" option.

percentage of total credit hours. For example, if health administration students in Program A typically completed a total of sixty credit hours for their Master's degree, and six of these credit hours were in Financial Management, then 6/60 = 10 percent of program credit time was assigned to Financial Management. It was necessary, however, to adjust for program length as well since total academic time, i.e., time in the classroom, varied from twelve to twenty months. To make this adjustment, the proportion of program credits, e.g., 10 percent in the example above, was multiplied by total academic time (in months) to get the number of "months equivalent" spent in the classroom in each topic area. A topic area which typically accounted for 10 percent of program credits would, in a twelve-month academic program, get 1.2 academic months. In an eighteen-month academic program the comparable figure would be 1.8 academic months.

Academic time was the primary focus of attention. The residency was given a weight, but only as a percentage of total credits earned. Almost all hospital/health administration programs required a residency which varied from three to twelve months in length. Some programs gave credits for it, others did not. The comments of the program directors indicated that they thought the residency contributed most to knowledge/skill in the curriculum topic areas of Interpersonal Skills, Applied Administration and Research Methodology. However, no valid weights could be assigned to these areas because of wide variations in structure, level of supervision, degree of control, etc., associated with the residency period. The field-placement does

no doubt contribute in various ways to the knowledge and skills of the student, but it is the classroom--the academic portion of the curriculum--that distinguishes a university degree program from an apprenticeship training program. If an apprenticeship produced health administrators of equal skill (a possibility not tested in this study), there would be little if any justification for an expensive two-year Master's degree program.

Classroom months, the unit developed to measure the allocation of time among the various topic areas, does not translate readily into more familiar terms such as number of courses or classroom hours. There was a great deal of variation among programs with regard to the total length of the academic period (from twelve to twenty months), the calendar terms (semesters, quarters, etc.) and the total number of courses and credits taken. "Classroom months" indicates the absolute amount of class time spent on any given topic area in the average curriculum, which ran 15.8 months.[1] For example, 2.18 classroom months might translate into two to three courses for a program on a semester system, but somewhat more for a program on a quarter system.

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[1]Among the seventeen programs, the academic periods were as follows: six programs--twelve months; nine programs--eighteen months; one program--fifteen months; one program--twenty months.

The profile of the "average" program which emerged from these computations is presented in Table V-8.[1] The eighteen curriculum topic areas are listed in order according to their relevance ranking, from highest to lowest. The relevance and emphasis rankings are reproduced in Columns 1 and 2 for ease of reference. Column 3 indicates how many of the seventeen respondent programs included or covered any particular topic area in their curricula. The same information is presented in percentage terms in Column 4.

Three topic areas--Financial Management, Health Care Organization and Quantitative Methods--were universally included in the curricula of the respondent programs. Administrative Theory would also be universal if the distinction between "General" and "Applied" were dropped, as it might well be. Health Law was almost universal--all but one of the seventeen programs covered it. Economics was included in the curricula of thirteen of the programs (76 percent). In some cases these were basic courses in micro or macro economics, as called for in the taxonomy, but courses in health economics were also assigned this taxonomy code by the program directors. Not enough information was provided to distinguish between the two, which would be required for purposes of strict comparability with the graduate

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[1] For readers who may wish to compare their own programs with the figures presented here, classroom months are computed as percents of total curriculum time in Table V-8, Column 7. For accurate comparison of real class time in any particular case, adjustment must be made for the length of the academic period if it does not approximate 15.8 months. To compare a twelve-month program, for example, it would be necessary to apply a "deflation" factor of .76; otherwise, absolute classroom time would be over-estimated. It is absolute, not relative, academic time that should be the unit of measurement.

TABLE V-8

AVERAGE CLASSROOM TIME IN EIGHTEEN CURRICULUM TOPIC AREAS FOR SEVENTEEN PROGRAMS IN HOSPITAL/HEALTH ADMINISTRATION

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Graduate's Relevance and Emphasis Rankings[1]		Number and Percent of Programs Covering Topic Area		Classroom Time In Average Classroom Months			Range (Where Covered)[2] in Classroom Months	
Curriculum Topic Area	Relevance	Emphasis	Number	Percent	Rank	Months	Percent	Low	High
High Relevance									
7. Financial Management	1	11	17	100	1	2.18	13.8	.56	6.30
10. Interpersonal Skills	2	4	7	41	11.5	.36	2.3	.34	1.80
1. General Administrative Theory	4	1	16	94	6	.85	5.4	.25	2.00
2. Applied Administrative Theory	4	3	15	88	4	1.09	6.9	.54	3.60
3. Health Care Organization	4	2	17	100	3	1.29	8.2	.50	3.46
Mid-Level Relevance									
18. Government Relations	6	8	9	53	13	.33	2.1	.17	1.01
15. Health Law	7	9	16	94	7	.66	4.2	.17	1.12
8. Personnel Administration	8	16	7	41	10	.37	2.3	.14	1.28
4. Medical/Nursing Practice	9	14	4	24	18	.14	.9	.54	.67
6. Comprehensive Health Planning	10	6	11	65	8	.55	3.5	.34	1.60
11. Information Systems	11	13	6	35	9	.40	2.5	.67	2.11
12. Quantitative Methods	12	5	17	100	2	1.76	11.1	.50	3.65
9. Industrial Relations	13	17	7	41	17	.18	1.1	.14	.86
Low Relevance									
14. Research Methods	14	7	6	35	15	.25	1.6	.58	.90
16. Medical Sociology	15[3]	10[3]	5	29	14[3]	.27[3]	1.7	.65	1.21
13. Economics	16[3]	12[3]	13	76	5[3]	1.02[3]	6.4	.50	3.60
5. Public Health Administration	17	15	4	24	16	.22	1.4	.34	1.48
17. Epidemiology	18	18	7	41	11.5	.36	2.3	.54	1.71
Other			9			.56	3.5	.29	2.39
Electives			11			1.65	10.4	.50	5.34
Miscellaneous (Residency, Thesis)			12			1.34	8.5	.56	4.00
Total						15.83	100.1		

[1] $N \geq 802$.

[2] Does not include 0's for programs which do not cover the topic areas at all.

[3] Relevance and emphasis rankings not comparable with time rankings because of differences in definitions.

questionnaire. All other topic areas were covered with lower frequencies, ranging from 24 to 65 percent. Topic areas of considerable relevance to graduates--Government Relations, Personnel Administration, Medical/Nursing Practice, and Information Systems/Computers--were not included in the curricula of 50 to 75 percent of programs.

The classroom months devoted to each curriculum topic area represent averages for the entire group of programs.[1] Financial Management received the largest allocation of time, 2.18 months on the average. General and Applied Administrative Theory, at 1.94 months, Quantitative Methods, at 1.76 months, and Health Care Organization, at 1.29 months, were second, third and fourth respectively. These figures, of course, are composites. They do not necessarily mirror any individual programs. In fact, as shown in Columns 8 and 9, the range of classroom months in any single topic area was quite wide. For example, some programs allocated six times as many classroom months as others to the topic areas which were included in the curricula of all programs.

Classroom Time & Curriculum Relevance for
Hospital/Health Administration Programs

The most interesting comparison for purposes of this study was the relationship between average time and relevance. A topic-by-topic match of the rankings for time (Column 5) and relevance (Column 1) is most revealing. Financial Management, the area of

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[1]Classroom months for each program were summed and divided by seventeen, regardless of whether or not an individual program covered the particular topic area. In other words, zeroes were included in the averages.

highest relevance for HA graduates, was also the area to which most time was allocated, on the average. General and Applied Administrative Theory and Health Care Organization, all tied for third place with regard to relevance, were second and fourth in time allotted, additional good matches. When the comparison was made for all of the topic areas, only four stood out as significantly discrepant. Quantitative Methods, with a relevance ranking of 11, was in third place with regard to allocated time. Interpersonal Skills had relevance and time rankings of 2 and 10.5 respectively: only seven program directors (40 percent) identified it as part of their academic curricula. Government Relations and Medical/Nursing Practice, of considerable relevance to graduates, also were given relatively small allocations of curriculum time. Economics, which would appear to be disproportionately emphasized in curricula, must be exempted from the relevance/time analysis because the definition was not the same for the two comparison groups, i.e., graduates and program directors.

To provide a summary measure of these relationships, the mean relevance ratings of HA respondents were correlated with curriculum time in all 18 topic areas. The resulting correlation coefficient was .32. The relationship among the variables is illustrated in the scatter diagram presented in Figure 1, where mean relevance ratings were regressed on curriculum time. Plots of the individual curriculum topic areas in relation to the regression line clearly show those areas most deviant from the general relationship.

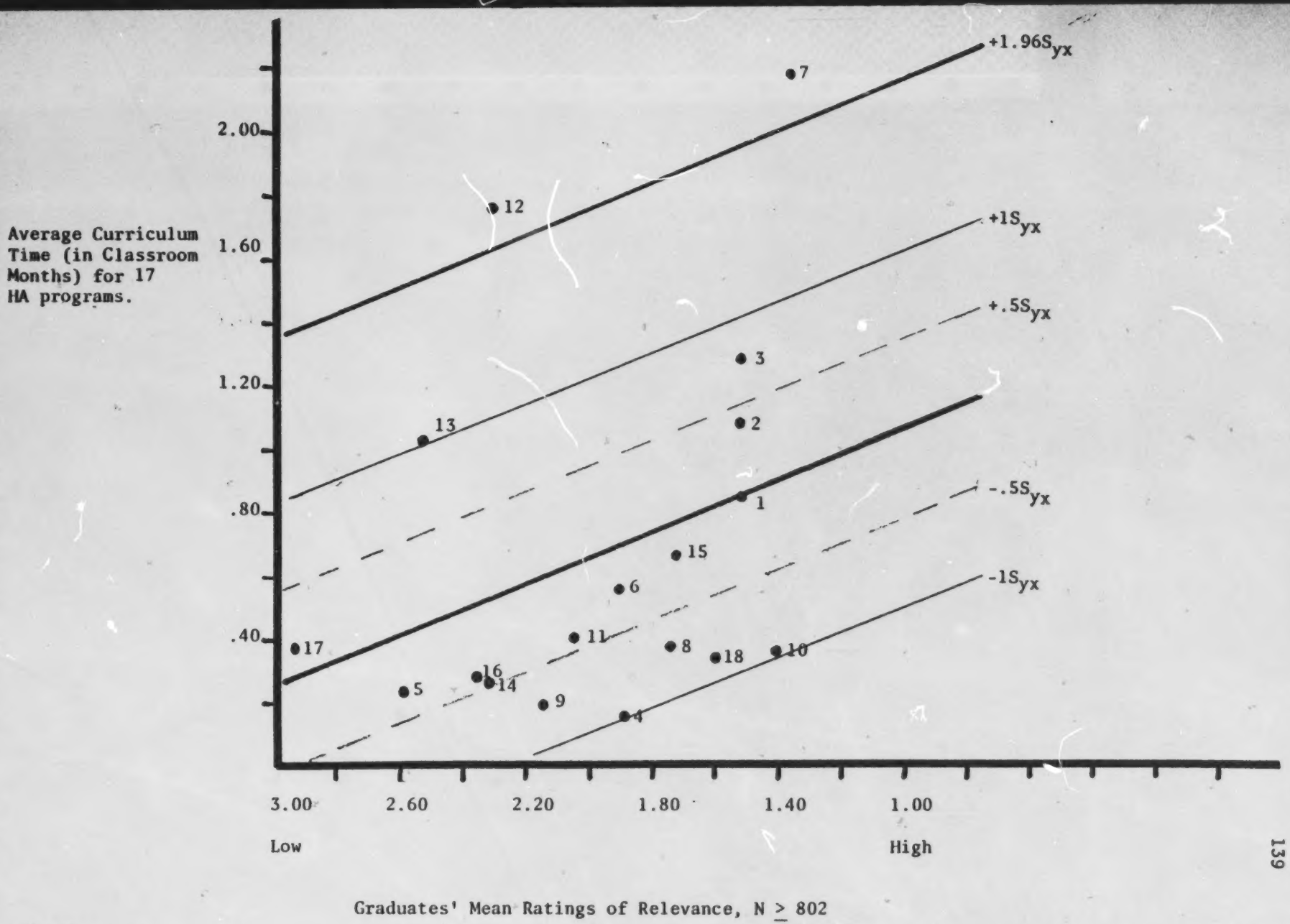

Figure 1. Hospital/Health Administration Programs: Regression of Curriculum Time on Degree of Relevance for 18 Topic Areas.

The two most significant outlyers were Financial Management (No. 7) and Quantitative Methods (No. 12), both located at a statistically significant distance from the regression line ($p < .05$). Interpersonal Skills (No. 10), Medical/Nursing Practice (No. 4), Government Relations (No. 18) and Personnel Administration (No. 8) all ranged from more than one-half to a full standard deviation below the regression line, indicating that relevance ratings exceeded average curriculum time allotments.

Graduate ranking of curriculum emphasis (Column 2) were in slightly better correspondence with the rankings of allocated time just described. However there were four relevant topic areas in which the two rankings did not correlate well. Graduates indicated that Financial Management had been emphasized only moderately in their curricula (rank 11), while these data indicate it receives the highest allotment of curriculum time. On the other hand, Interpersonal Skills and Government Relations were perceived to have had more emphasis than would be suggested by the time allotments shown. To a lesser degree Personnel Administration had a lower emphasis rating than indicated by the time allotment.

These poor correlations can be explained in numerous ways--faulty memories or perceptions, real changes in curricula during the four to six year period since the graduates were enrolled, failure of the curriculum data to fully relfect all time and topic coverages, and/or simply lack of any real relationship between perceptions of emphasis, on the one hand, and amount of academic time

on the other. The first and last would appear to be ruled out as adequate explanations in view of the fair to good correlations which existed in fourteen out of the eighteen topic areas. No doubt there were some gaps and inaccuracies in the descriptions of program curricula[1] and they could explain the discrepancies in Government Relations and Personnel Administration, but it seems unlikely that they would account for the large discrepancies in Interpersonal Skills or Financial Management.

Interpersonal Skills was a topic area of very high relevance for HA graduates in virtually every type of job in every organizational setting. To consider only the emphasis ranking is somewhat misleading. Interpersonal Skills, as shown in Table V- 7A, gave rise to one of the larger discrepancies between relevance and emphasis ratings found among the 18 curriculum topic areas in the taxonomy. Little attention is apparently directed to Interpersonal Skills in the academic portion of the average HA curriculum: 10 out of 17 program directors indicated that it was not included in their course work at all. It is often assumed that such skills are learned on-the-job, rather than in the classroom, yet this study failed to show any significant differences in emphasis ratings among graduates who had served long residencies, and those who had served short ones or none at all. The topic area is certainly worthy

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[1]Exclusion of the residency, though necessary, was clearly a source of information loss, while the use of a single (or, at most, dual) taxonomy code for each course may have misrepresented total course coverage to some degree.

of more explicit consideration by educators.

The discrepancy between emphasis rankings and curriculum time in the Financial Management area can best be explained in one of two ways: either the amount of time devoted to Financial Management, relatively large though it may have been, was not perceived as high emphasis, or there was a real increase in the amount of classroom time devoted to this topic area since graduates in the survey were enrolled in their Master's programs. Information supplied by program directors (detailed in Chapter VII) gives strong support to the latter conclusion.

In view of the extremely high relevance which Financial Management has for hospital/health administration graduates, an increase in academic time would appear to be most appropriate. As suggested in Columns 8 and 9 of Table 8, however, there was considerable diversity among the seventeen programs with regard to this time allocation. Although the average was 2.18 classroom months (required courses and recommended electives), the range was .56 to 6.30.[1] Disregarding the differences in length of terms (semesters, quarters, etc.), the average number of courses required in Financial Management was 2.35. Eleven of the seventeen programs had a two-course requirement: when recommended electives were included, the average rose to 2.76 courses.

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[1]This diversity would be even more pronounced if prerequisites for admission to the various programs were taken into account. Out of 26 HA programs, 30 percent had no prerequisite; 54 percent required accounting; 46 percent required both accounting and economics; and 35 percent required statistics.

It is, of course, generally assumed for purposes of curriculum design, that more academic time leads to better knowledge/skills preparation. It was possible to confirm this hypothesis, at least in gross terms. for Financial Management skills using the data available from the surveys of both graduates and program directors. Information on the amount of academic time devoted to Financial Management was available for seventeen different programs. Ratings on the adequacy of their skills preparation in the Financial Management area were available from the graduates of all but one of the same group of programs.[1] For each of the sixteen programs, a score was computed which indicated the proportion of graduates who had reported either good or excellent preparation in the various skill areas. (The proportion ranged from 7 to 70 percent.) Each program was then assigned two ranks, one in accordance with the amount of academic time spent on Financial Management, the other in accordance with graduates' judgments as to the quality of their preparation. The results of the rankings were as follows:

	Program															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Adequacy of Skills Preparation: Rank	13	16	1	4	15	7	2	3	14	10	9	6	5	8	12	11
Classroom Time: Rank	14	13	1	7	10.5	5	4	3	16	11	2	5.5	9	12	15	8

[1] The questionnaire to program graduates asked all respondents to rate their Master's program in preparing them to perfrom nine key financial management tasks--develop an operating budget, interpret and use financial statements, etc. See Section 2 of Chapter VI, where the findings are presented and discussed.

Perusal of the figures makes it apparent that there was an association between the two sets of rankings. In fact, the rank order correlation coefficient was .77. The high correlation occurred in spite of the fact that it was based on events which were separated in time by as much as six years. Graduates were evaluating their skills preparation as of the time of their enrollment, i.e., 1971-72 or 1973-74. Program directors, on the other hand, were describing their curricula as of 1977. The results suggest considerable stability in the curricula of individual programs. Those that spent relatively large amounts of classroom time on Financial Management five or six years ago continue to do so, while those that spent relatively little time (though the absolute amount of time may have increased somewhat, e.g., from one to two courses) remain at the low end of the time allocation scale.[1]

Public Health Administration Programs

The survey of programs in public health administration did not yield sufficient data to provide curriculum profiles. Although nine of the fifteen program directors responded, most did not complete the curriculum taxonomy form. By and large, this was because a fairly large portion of the curriculum consisted of electives selected to meet the needs of the individual student. The patterns

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[1]The program which graduates ranked highest for skills preparation required three courses in some aspect of financial management, and highly recommended four more.

of selection were apparently too diverse for any valid general summary description.

Seven of the questionnaires were completed with regard to courses which were required of all students. On average, either the school or the program had requirements (excluding the residency) which accounted for 53 percent of the total credits earned during the twelve to sixteen month Master's Program. (The range was 44 to 77 percent.) In terms of the curriculum taxonomy used for this study, only two topic areas were required by all seven programs: Health Care Organization and Epidemiology. General and Applied Administration were required by six of the seven, Quantitative Methods and "Other" (Environmental Health) by five. Three of the schools had requirements in Public Health Administration, Comprehensive Health Planning, Economics (basic or health-related), and Government Relations. The other topic areas in the taxonomy were required by one or two programs, except that no program required any courses in Interpersonal Skills, Health Law, or Industrial Relations. A residency was required by all seven programs: it varied in length from three to twelve months.

The descriptions were not sufficiently complete to provide meaningful comparisons with graduates' ratings of curriculum relevance. Many courses beyond those listed above are taken by students in public health administration. Insofar as the school or program requirements described above reflect program emphasis, the near

universality of Epidemiology and Quantitative Methods (both of moderate to low relevance) and the complete absence of Interpersonal Skills (of highest relevance) are worthy of comment.

TECHNICAL APPENDIX

CURRICULUM RELEVANCE AND EMPHASIS

Because the relevance and emphasis scores are subjective ratings, vulnerable to various types of response bias, it is important to address the question of the extent to which these ratings represent independent measures. To assess this the Pearson product moment correlation coefficient was computed between the emphasis rating and the relevance rating for each of the eighteen curriculum topic areas, the correlations being done independently for the hospital/health administration graduates and the public health administration graduates. These coefficients are presented in Table V-9 and are generally of low magnitude. While most of the correlation coefficients are statistically significant because of the large sample sizes and, therefore, should be considered reasonably stable estimates, the interpretation of interest relates to the amount of common variance that exists between the relevance and emphasis ratings.

The range of coefficients for the hospital/health administration graduates was from .02 to .35. The sample size for this group was approximately 802. The variance in common for the emphasis and relevance ratings of Financial Management was essentially zero, the square of .02 being practically insignificant. The higher correlation of .35 was obtained in the topic area of Public Health Administration which represents common variance of 12 percent in the ratings. For

the hospital/health administration graduates the median coefficient for the eighteen different curriculum topic areas was .22, representing a common variance of approximately 4 percent. Similarly, based upon a sample size of approximately 250, the range of correlation coefficients for the Public Health Administration graduates was from .07 to .44, the median correlation being .26. Since the common variance is estimated by squaring these coefficients, the range would be from less than one-half of one percent to 20 percent variance at the upper end, with the median common variance being approximately 6 percent.

The low-order correlation coefficients obtained here indicate only minor overlap between the ratings of emphasis and relevance. The percent common variance is in accord with known characteristics of subjective rating scales of this type and can be attributed to variance that is a function of response styles in the utilization of such rating forms. The variance unaccounted for by these correlation coefficients is, of course, that which we wish to understand as it may offer explanatory information vis-à-vis the organization and structure of curriculum.

Tables V-10A and B present the mean emphasis and relevance scores in each curriculum topic area as judged by the graduates of hospital/health administration and public health administration programs respectively. The number of respondents and the standard deviations associated with each mean are also given, should the reader wish to repeat any of the subsequent computations, or perform a different set of analyses.

APPENDIX

TABLE V-9

CORRELATIONS BETWEEN EMPHASIS AND RELEVANCE RATINGS OF GRADUATES OF HOSPITAL/HEALTH ADMINISTRATION PROGRAMS AND PUBLIC HEALTH ADMINISTRATION PROGRAMS

CURRICULUM TOPIC AREAS	Correlation of Emphasis x Relevance			
	Hospital/Health Administration Graduates		Public Health Administration Graduates	
	N	r	N	r
1. General Administrative Theory	805	.22	255	.34
2. Applied Administrative Theory	804	.21	254	.20
3. Health Care Organization	805	.15	254	.09
4. Medical/Nursing Practice	804	.33	245	.36
5. Public Health Administration	809	.35	253	.29
6. Comprehensive Health Planning	807	.14	252	.07
7. Financial Management	807	.02	250	.13
8. Personnel Administration	804	.18	253	.13
9. Industrial Relations	802	.17	251	.25
10. Interpersonal Skills	807	.21	253	.28
11. Information Systems/Computer Applications	806	.08	252	.25
12. Quantitative Methods/Applied Statistics	806	.26	254	.29
13. Economics	801	.29	250	.44
14. Research Methodology	805	.32	252	.38
15. Health Law	805	.22	251	.35
16. Medical Sociology	806	.31	252	.32
17. Epidemiology	805	.27	255	.23
18. Government Relations/Political Science	806	.24	254	.27

APPENDIX

TABLE V-10A

GRAND/MEANS AND STANDARD DEVIATIONS FOR EMPHASIS AND RELEVANCE RATINGS OF GRADUATES OF HOSPITAL/HEALTH ADMINISTRATION PROGRAMS

CURRICULUM TOPIC AREAS	Emphasis Ratings			Relevance Ratings		
	N	Mean	Standard Deviation	N	Mean	Standard Deviation
1. General Administrative Theory	814	1.43	.61	808	1.51	.65
2. Applied Administrative Theory	812	1.63	.70	807	1.52	.65
3. Health Care Organization	813	1.46	.58	807	1.52	.67
4. Medical/Nursing Practice	813	2.53	.76	806	1.89	.75
5. Public Health Administration	815	2.55	.82	810	2.58	.81
6. Comprehensive Health Planning	815	2.01	.75	808	1.90	.84
7. Financial Management	814	2.22	.77	809	1.37	.66
8. Personnel Administration	814	2.66	.82	806	1.74	.79
9. Industrial Relations	813	2.69	.80	805	2.14	.92
10. Interpersonal Skills	814	1.97	.85	809	1.41	.61
11. Information Systems/Computer Applications	815	2.52	.82	807	2.05	.76
12. Quantitative Methods/Applied Statistics	815	1.99	.80	807	2.31	.81
13. Economics	813	2.41	.94	802	2.53	.81
14. Research Methodology	814	2.11	.86	807	2.31	.90
15. Health Law	813	2.14	.81	808	1.72	.75
16. Medical Sociology	814	2.17	.84	808	2.35	.82
17. Epidemiology	814	2.79	.88	807	2.93	.77
18. Government Relations/Political Science	814	2.13	.78	808	1.60	.74

APPENDIX

TABLE V-10B

GRAND MEANS AND STANDARD DEVIATIONS FOR EMPHASIS AND RELEVANCE RATINGS OF GRADUATES OF PUBLIC HEALTH ADMINISTRATION PROGRAMS

CURRICULUM TOPIC AREAS	Emphasis Ratings			Relevance Ratings		
	N	Mean	Standard Deviation	N	Mean	Standard Deviation
1. General Administrative Theory	256	1.75	.83	255	1.73	.84
2. Applied Administrative Theory	255	1.92	.85	254	1.80	.88
3. Health Care Organization	255	1.69	.72	254	1.77	.87
4. Medical/Nursing Practice	251	2.76	.90	245	2.10	1.04
5. Public Health Administration	255	1.72	.73	253	2.02	.89
6. Comprehensive Health Planning	254	1.72	.81	252	2.08	.95
7. Financial Management	252	2.96	.82	251	2.12	1.04
8. Personnel Administration	254	3.02	.87	253	2.18	1.05
9. Industrial Relations	253	3.22	.79	251	2.87	1.00
10. Interpersonal Skills	254	2.27	.91	253	1.62	.76
11. Information Systems/Computer Applications	253	2.61	.89	252	2.21	1.00
12. Quantitative Methods/Applied Statistics	255	2.04	.82	254	2.33	.90
13. Economics	252	2.53	.95	250	2.61	.99
14. Research Methodology	254	2.05	.95	252	2.11	.98
15. Health Law	253	2.41	.87	251	2.12	.94
16. Medical Sociology	254	2.06	.88	252	2.01	.94
17. Epidemiology	256	1.56	.68	255	2.06	.94
18. Government Relations/Political Science	255	1.91	.81	254	1.73	.84

APPENDIX TABLE V-11

RELEVANCE OF 18 CURRICULUM TOPIC AREAS IN VARIOUS ORGANIZATIONAL SETTINGS: MEAN RELEVANCE SCORES[1]

Curriculum Topic Areas	Personal Medical Services						Health Related Agencies and Organizations						
	Short-Term Hospital	Long-Term Facility	Ambulatory Center	HMO	Other	All Pers. Med. Serv.	Public Health	Health Planning	Research/ Consulting	Med. School/ University	Regulatory/ Admin.	Other	All Health Related
1. General Administrative Theory	1.449	1.200	1.694	1.496	1.558	1.464	1.597	1.892	1.831	1.838	2.000	1.716	1.787
2. Applied Administrative Theory	1.472	1.333	1.639	1.531	1.651	1.491	1.556	1.944	1.915	1.865	1.854	1.691	1.784
3. Health Care Organization	1.543	1.933	1.833	1.469	1.581	1.565	1.778	1.324	1.695	1.716	1.634	1.469	1.628
4. Medical/Nursing Practice	1.821	1.800	2.143	1.839	2.190	1.859	2.014	2.108	2.288	2.097	2.024	2.113	2.115
5. Public Health Administration	2.660	2.357	2.417	2.406	2.209	2.604	1.634	1.865	2.610	2.000	1.854	3.000	2.119
6. Comprehensive Health Planning	1.905	2.467	2.514	2.094	2.000	1.961	1.903	1.108	1.746	2.122	2.122	1.914	1.873
7. Financial Management	1.321	1.333	1.500	1.594	1.643	1.362	1.875	1.784	1.661	2.192	2.220	1.875	1.940
8. Personnel Administration	1.609	1.467	1.639	1.656	1.721	1.616	2.042	2.622	2.456	2.260	2.488	2.420	2.346
9. Industrial Relations	1.935	2.067	2.528	2.344	2.488	2.020	2.875	3.189	2.793	2.986	2.902	2.886	2.934
10. Interpersonal Skills	1.374	1.267	1.500	1.406	1.419	1.382	1.528	1.757	1.627	1.603	1.610	1.642	1.616
11. Information Systems/Computers	2.044	2.600	1.944	1.750	2.000	2.035	2.181	2.216	1.776	2.139	2.244	2.222	2.155
12. Quantitative Methods	2.351	2.733	2.457	2.094	2.465	2.360	2.264	2.135	1.746	2.110	2.634	2.220	2.189
13. Economics	2.604	2.667	2.861	2.500	2.628	2.615	2.583	1.865	2.424	2.417	2.512	2.231	2.381
14. Research Methodology	2.448	2.800	2.389	1.903	2.256	2.417	1.986	1.919	1.610	1.708	2.390	2.063	1.938
15. Health Law	1.611	1.857	2.171	1.750	2.047	1.676	1.958	1.865	2.155	2.205	2.122	2.160	2.108
16. Medical Sociology	2.391	2.733	2.250	2.031	2.140	2.360	1.875	2.027	2.356	1.878	2.195	2.325	2.111
17. Epidemiology	2.945	3.067	2.611	2.563	2.535	2.889	1.861	2.324	2.831	2.122	2.415	2.805	2.398
18. Government Relations	1.658	1.867	1.972	1.594	1.605	1.672	1.681	1.162	1.542	1.770	1.171	1.543	1.542
N =	(598)	(16)	(36)	(32)	(45)	(713)	(72)	(38)	(59)	(75)	(42)	(84)	(371)

[1]Scoring system: 1 = High relevance; 2 = Moderate; 3 = Low; 4 = None

CHAPTER VI

EVALUATION OF PROGRAMS

The survey questionnaire was designed to enable graduates to evaluate their Master's level health administration or planning programs along several dimensions. A general evaluation was provided by individual ratings and by an exploration of the strongest and weakest areas in program curricula. Graduates were also asked to rate the quality of their educational preparation in a number of very specific knowledge/skill areas, areas which had emerged as deficient in a prior study of health administration programs. The results of these two investigations are presented in Sections 1 and 2 of this chapter.

An important feature of many health administration programs is a required residency, practicum or internship. As shown in the preceding chapter, the length of the residency may effect both the content and emphasis of program curricula. It might also influence the way in which graduates evaluated their programs. This possibility is explored in Section 3.

Job placement experience is the final dimension of program evaluation described in this chapter. Although not immediately related to curriculum topic areas, initial job placement reflects, at least to some degree, the marketability or acceptability of program graduates in the professional field.

1. General Evaluation

The questionnaire asked each graduate to give an overall evaluation of his/her program, and indicate both the strongest and weakest areas of the curriculum. As shown in Table VI-1, over 70 percent of respondents characterized their graduate education, based on personal experience since graduation, as good (53 percent) or excellent (21 percent). Only 3 percent thought it had been poor, but almost one-quarter considered it just fair. The ratings were somewhat better for the graduates of hospital/health administration programs, where 77 percent awarded good or excellent marks. The public health administration group judged their programs somewhat more harshly. Only 64 percent checked good or excellent, while almost 30 percent marked fair and 7 percent poor. Graduates of health planning programs (only 23 respondents in all) assigned ratings very similar to the HA group.

Graduates as a whole appeared to rate their programs reasonably well, but this was not always the case with individual programs. Among the 30 health/hospital administration programs included in the survey, four were judged only fair or poor by more than 50 percent of their alumni. Of the thirteen PHA programs, only one achieved this distinction. At the other extreme, two HA programs and two PHA programs were rated excellent by more than 50 percent of their graduates. (Overall only 21 percent of respondents rated their programs as excellent.) There is clearly a significant variance in quality among programs, at least in the eyes of alumni.

TABLE VI-1

OVERALL EVALUATION OF PROGRAMS, BY TYPE OF PROGRAM

Overall Evaluation	Graduates by Type of Program			
	All Respon-dents	Hlth/ Hosp Admin	Public Health Admin	Health Plann-ing
1) Poor	3.1	1.8	7.0	4.3
2) Fair	22.7	20.9	28.9	17.4
3) Good	53.0	55.2	44.5	69.6
4) Excellent	21.2	22.1	19.5	8.7
	100.0	100.0	100.0	100.0
N =	1098	819	256	23

Strongest and Weakest Curriculum Content Areas

Graduates were asked to indicate the one area they thought was strongest in their program's curriculum (at the time of their enrollment) and also the one weakest area, i.e., that most in need of improvement. The results are presented in Table VI-2. Among the list of eighteen curriculum topic areas, the hospital/health administration alumni listed most frequently as the strongest areas: General Administrative Theory (23 percent of respondents; Health Care Organization (21 percent); and Applied Administrative Theory (14 percent). The graduates of PHA programs listed Health Planning (17 percent), General Administrative Theory (15 percent), Health Care Organization (15 percent), and Epidemiology (13 percent). None of the fifteen other curriculum areas received more than 8 percent of the responses from either group.

There was consensus among the two groups of graduates as to the topic area considered weakest: both listed Financial Management with by far the greatest frequency (42 and 36 percent respectively). Another area listed as weakest was Personnel Administration, but it was mentioned far less frequently (11 and 9 percent for the two groups). No other topic area appeared with a frequency in excess of 8 percent of the responses for either group.

Respondents had an opportunity to write-in responses, but they showed no unanimity. Out of 18 write-ins, only one topic area was repeated--marketing (as a weak area). It is interesting to note that Interpersonal Skills, which were considered highly relevant by both

TABLE VI-2

CURRICULUM'S STRONGEST AND WEAKEST CONTENT AREAS BY TYPE OF PROGRAM

(Percent)

Curriculum Content Areas	Strongest Area				Weakest Area			
	All Respon-dents	Hlth/ Hosp. Admin.	Public Health Admin.	CHP	All Respon-dents	Hlth/ Hosp. Admin.	Public Health Admin.	CHP
1. General Administrative Theory	20.5	22.7	15.1	--	.9	.8	1.3	--
2. Applied Administrative Theory	12.6	14.4	7.6	4.5	3.8	2.8	7.2	4.5
3. Health Care Organization	19.2	20.9	14.7	4.5	1.1	1.4	.4	--
4. Medical/Nursing Practice	.3	.3	.4	--	4.3	4.3	4.2	4.5
5. Public Health Administration	1.7	.4	6.3	--	1.0	.9	1.3	--
6. Comprehensive Health Planning	8.7	5.2	16.8	45.5	3.6	3.7	3.0	9.1
7. Financial Management	6.1	8.0	.4	--	40.8	42.1	35.6	50.0
8. Personnel Administration	.8	.9	.4	--	10.4	11.0	8.5	9.1
9. Industrial Relations	.5	.6	--	--	4.6	4.8	3.8	4.5
10. Interpersonal Skills	5.1	6.0	2.5	--	3.7	3.9	3.4	--
11. Information Systems/Computers	.6	.6	.4	--	5.4	5.6	5.1	4.5
12. Quant. Methods/Applied Statistics	5.6	5.6	5.5	4.5	4.0	3.5	5.1	9.1
13. Economics	2.8	2.2	1.7	36.4	3.0	2.7	4.2	--
14. Research Methodology	3.7	3.2	5.5	4.5	1.7	1.4	2.5	4.5
15. Health Law	4.0	4.6	2.5	--	4.9	5.4	3.4	--
16. Medical Sociology	1.7	1.4	2.9	--	.7	.4	1.7	--
17. Epidemiology	3.0	.1	12.6	--	2.3	2.0	3.4	--
18. Gov't. Relations/Political Science	3.1	2.7	4.6	--	3.9	3.4	5.9	--
N =	(1043)	(783)	(238)	(22)	(1049)	(791)	(236)	(22)

groups of respondents in virtually all organizational settings, did not appear with significant frequency as either the strongest or weakest curriculum area. Although it is not clear how, or if, such skills are being provided by Masters' level programs, graduates apparently do not feel inadequately prepared in this area.

The findings reported here with regard to program strengths and weaknesses are in general accord with those of the Kellogg Commission survey conducted four years earlier. The respondent groups are not strictly comparable since Kellogg's figures included both students and graduates, and they did not separate health/hospital administration from public health administration respondents. Nevertheless, Kellogg found the strongest curriculum content areas to be General Administrative Theory, Applied Administrative Theory, Health Care Organization, Comprehensive Health Planning, and Applied Statistics. With the single exception of the last item, the present study found precisely the same evaluations.

Kellogg found the weakest content areas to be Financial Management, Systems Analysis/EDP, Personnel Administration, and Health Law. Only Financial Management and Personnel Administration appeared with high frequency (41 and 10 percent respectively) for the comparable group in the present study (HA and PHA responses combined). However, Information Systems, Health Law and Industrial Relations were next in frequency, each cited as weakest content areas by 5 percent of all respondents. The Kellogg study did not present frequency counts so it is impossible to tell whether their results were also in the

neighborhood of 5 percent or were significantly higher.

2. Preparation in Selected Knowledge/Skill Areas

The Kellogg Commission survey referred to above had found that recent program graduates (and their employers) considered their educational preparation deficient in several curriculum areas.[1] Financial Management and Personnel Administration were most prominent among the eight different topic areas mentioned.[2] In addition, employers thought graduates were deficient in quantitative techniques, although they did not judge this to be a very crucial skill nor did graduates often list it among the weakest curriculum areas. In designing the present study, it was decided that a more detailed inquiry into the particulars of these deficiencies might prove of some value to educators in the health administration field. A rather lengthy question was devised in an attempt to get evaluations of program preparation in those specific skills generally recognized to belong within each curriculum topic area.

Textbooks and teaching faculty were consulted in order to identify the appropriate set of specific skills. There was a high degree of consensus on each of the skill sets, but the lists were much too long for inclusion in the survey. A small panel of practicing administrators then reviewed the complete lists and selected those

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[1] Ibid., Vol. II, pp. 88-89.

[2] There was some confusion about the meaning of the findings re personnel relations because of the way in which it was defined.

skills which they felt were most important and which would, at the same time, cover the topic area in a reasonably comprehensive manner. In the end, twenty-two specific knowledge/skill areas were incorporated into the survey question, making it rather tedious even then.[1] The list reflects, to some extent, the fact that the majority of the selection panel were hospital administrators. However, most items are applicable to administrative or supervisory positions in any health-related organization, though their relative importance may differ somewhat.

The skills preparation question as it appeared in the survey instrument is reproduced on the following page. Respondents were asked to rate their educational preparation in each knowledge/skill area as (1) Excellent, (2) Good, (3) Fair, or (4) Poor. An option was also provided which the respondent could check if his/her program had not covered the area in question. Specific skills were grouped under the general curriculum topic area to which they related, but the groupings were of unequal size, Financial Management being the largest (9 items) and Quantitative Methods the smallest (3 items).

The results are summarized in Table VI-3. Since the purpose of the question was to illuminate both the degree and source of educational inadequacies, data are presented on the percentage of all respondents who graded their preparation as fair or poor or who said the skill area was not covered in the curriculum. The sum of these

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[1]The response rate for this question did not fall off significantly, however,

QUESTION ON SKILLS PREPARATION

7. In light of your experience since graduation, how would you rate your Master's program in preparing you for the following:

	Excellent (1)	Good (2)	Fair (3)	Poor (4)	Program Did Not Cover (5)
Financial Management					
a. Develop an operating budget	☐	☐	☐	☐	☐
b. Monitor and control budget expenditures	☐	☐	☐	☐	☐
c. Manipulate the budget, improve the budgeting system	☐	☐	☐	☐	☐
d. Evaluate alternative capital investments & financing methods	☐	☐	☐	☐	☐
e. Plan and control the capital budget	☐	☐	☐	☐	☐
f. Interpret and use financial statements (balance sheets etc.)	☐	☐	☐	☐	☐
g. Make use of reimbursement schemes to maximize revenues	☐	☐	☐	☐	☐
h. Forecast future revenues, operating & capital needs	☐	☐	☐	☐	☐
i. Evaluate financial implications of new programs, mergers, etc.	☐	☐	☐	☐	☐
Quantitative Methods					
j. Identify problems amenable to quantitative analysis	☐	☐	☐	☐	☐
k. Use linear programming, modeling and other quantitative techniques in decision making	☐	☐	☐	☐	☐
l. Measure productivity, efficiency, quality of services delivered	☐	☐	☐	☐	☐
Personnel Administration					
m. Recruit, select and train new personnel	☐	☐	☐	☐	☐
n. Interpret and administer wage and salary policies	☐	☐	☐	☐	☐
o. Manage grievance and discipline problems	☐	☐	☐	☐	☐
p. Function within the context of a union contract	☐	☐	☐	☐	☐
Organization Management and Design					
q. Motivate and direct subordinates	☐	☐	☐	☐	☐
r. Improve intergroup & interdisciplinary planning, coordination	☐	☐	☐	☐	☐
s. Evaluate performance of people	☐	☐	☐	☐	☐
t. Manage conflict within the organization	☐	☐	☐	☐	☐
u. Implement organizational change (goals, structure, etc.)	☐	☐	☐	☐	☐
v. Assess current political and economic trends as they may affect the operation of your organization	☐	☐	☐	☐	☐

TABLE VI-3

EVALUATION OF PREPARATION IN SELECTED KNOWLEDGE/SKILL AREAS, BY TYPE OF PROGRAM

(Percent)

Selected Knowledge/Skill Areas	Ratings by Graduates by Program Type											
	All Respondents[1]				Health/Hosp. Administration				Public Health Administration			
	Fair	Poor	Not Cov'd	Total	Fair	Poor	Not Cov'd	Total	Fair	Poor	Not Cov'd	Total
Financial Management												
a. Develop Budget	30.9	23.7	12.8	67.4	33.2	22.8	7.3	63.3	25.2	26.4	26.8	78.4
b. Control Expenditures	30.9	22.3	11.5	64.7	32.6	20.9	5.8	59.3	26.1	26.9	26.9	79.9
c. Manipulate Budget	31.7	27.0	13.1	71.8	34.3	26.3	7.2	67.8	24.5	29.4	29.8	83.7
d. Evaluate Capital Investments	27.7	26.9	16.9	71.5	30.0	27.1	9.5	66.6	20.7	26.9	39.7	87.3
e. Control Capital Budget	30.0	26.5	16.5	73.0	32.6	26.7	8.6	67.9	22.2	25.9	39.5	87.6
f. Use Financial Statements	28.6	19.6	12.9	61.1	33.1	16.9	3.7	53.7	16.3	28.6	37.1	82.0
g. Reimbursement Schemes	25.0	32.6	25.1	82.7	27.9	35.2	17.9	81.0	16.9	24.0	46.3	87.2
h. Forecast	30.9	26.0	17.5	74.4	34.8	26.3	9.3	70.4	20.1	25.8	41.0	86.1
i. Evaluate New Programs	30.4	23.1	17.4	70.9	31.7	22.9	12.5	67.1	28.4	22.6	32.1	83.1
Quantitative Methods												
j. Identify Problems	30.6	8.4	3.1	42.1	30.8	7.7	1.8	40.3	32.0	10.4	7.6	50.0
k. Use Linear Programming	28.5	17.4	6.6	52.5	28.7	18.2	4.3	51.2	28.4	15.2	14.0	57.6
l. Measure Productivity	31.4	14.8	4.1	50.3	31.4	15.8	3.5	50.7	31.5	11.2	6.4	49.1
Personnel Administration												
m. Recruit and Train	30.3	14.3	20.7	65.3	32.1	14.0	15.2	61.3	26.6	14.9	33.5	75.0
n. Wage and Salary Policies	28.0	17.8	26.0	71.8	30.8	17.1	19.3	67.2	21.0	20.6	42.7	84.3
o. Grievance and Discipline	25.6	18.5	22.5	66.6	28.1	18.8	15.8	62.7	19.4	19.0	38.5	76.9
p. Work with Union Contract	26.4	21.4	31.9	79.7	30.9	22.5	23.2	76.6	13.8	19.5	54.9	88.2
Organization Management & Design												
q. Direct Subordinates	23.1	7.3	8.5	38.9	23.8	5.5	2.8	32.1	21.2	12.8	22.8	56.8
r. Intergroup Coordination	21.1	6.5	4.5	32.1	20.9	5.0	2.2	28.1	21.8	11.1	10.7	43.6
s. Evaluate Performance	27.8	13.0	11.8	52.6	29.3	11.9	6.6	47.8	24.7	15.1	24.3	64.1
t. Manage Conflict	28.3	9.8	6.8	44.9	29.2	7.6	3.9	40.7	25.7	16.5	14.5	56.7
u. Implement Change	20.7	5.6	3.8	30.1	20.5	4.7	2.1	27.3	21.8	8.7	8.3	38.8
v. Assess Economic Trends	21.6	6.1	4.3	32.0	20.7	5.8	2.7	29.2	24.7	6.8	9.6	41.1
N =	(1078)				(809)				(247)			

[1] Includes the small group of graduates from health planning programs not shown separately.

percentages thus represents the proportion of all respondents who, for whichever reason, felt less than well-prepared. (Subtracting this sum from 100 would give the proportion evaluating their preparation as excellent or good.) The results are discussed in detail below by major topic areas.

Financial Management

The skills listed under Financial Management ranged from interpretation and use of financial statements through control and manipulation of both operating and capital budgets to evaluation of new programs and forecasting. Reimbursement schemes were also included because of their importance in most personal health service delivery settings. Many additional skills were originally listed but eventually eliminated--after consultation with a group of practicing administrators--to keep the question within reasonable time and tedium bounds. Those remaining were considered essential and indicative of various levels of sophistication.

Among all 1,078 respondents from all programs, only 30 to 40 percent graded their preparation in any of the financial skill areas as good or excellent. On average, i.e., in each skill area, 30 percent thought it had been fair, while one-quarter graded it poor. An additional 12 to 25 percent could not offer evaluations because, in their opinion at least, the item had not been covered in their program. The skills most commonly included were use of financial statements and budget development, although even there 13 percent of the respondents checked "program did not cover." The area most

frequently excluded was reimbursement schemes, true for 25 percent of all respondents. Poor preparation was most common with regard to reimbursement schemes (33 percent) and least common with regard to the interpretation and use of financial statements (20 percent). Evaluation of the other seven skills fell between these two extremes, and were not significantly different from each other.

Health/Hospital Administration Graduates

Respondents who had graduated from HA programs evaluated their preparation somewhat more harshly than did the aggregate group described above. In virtually every skill category, the relative frequency of fair or poor evaluations was slightly higher, but the incidence of "not covered" was significantly lower, averaging only 9 (as compared with 16) percent. Skills related to reimbursement schemes were again most commonly omitted from curricula, but for only 13 percent of respondents. This skill area also received the highest proportion of "poor" grades (35 percent). The area judged best, and also most frequently covered, was use of financial statements, but even there half the respondents considered their preparation fair or poor. There is apparently considerable room for improvement in the teaching of each of these financial management skills.

Public Health Administration Graduates

The most significant difference between the evaluation of PHA and HA graduates in the financial management area was in the proportions reporting "program did not cover." Twenty-seven to 46 percent

of the PHA group indicated they had not had any preparation in various of the nine financial skills. Elsewhere in the questionnaire the PHA group had evaluated Financial Management as the weakest part of their program's curriculum, and most (but not all) had indicated the relevance of such management skills to their present jobs. The most appropriate set of financial skills may well be different for the PHA and HA groups, but the need for some set of skills is confirmed by both the Kellogg study and the present one.

The skills which PHA respondents reported as most frequently covered were budget development and control of expenditures. Least frequently covered were reimbursement schemes. (This may have been an appropriate omission since the majority of the PHA group did not go into personal service organizations where knowledge of reimbursement is most crucial. On the other hand, the minority--almost 30 percent--did go into such settings.) Capital budget matters and forecasting were also frequently omitted from program curricula.

Programs themselves apparently considered operational budget matters (a, b and c) and evaluation of new programs as most important, judging from the frequency with which these topics were covered. Approximately 70-75 percent of respondents claimed some preparation in these areas but 50 percent characterized it as fair (25-28 percent) or poor (23-30 percent). Only 13 to 20 percent graded their preparation as good or excellent in any of the nine financial skill areas. To improve curricula in this topic area, programs must both expand their coverage and raise the quality of their teaching, at

least in those areas considered most important for PHA graduates. Data from this question and from the question on principle activities (Chapter IV) suggest that the most relevant financial skills are operational budget matters (development and control) and new program evaluation.

Quantitative Methods

The skills listed under Quantitative Methods were designed to distinguish levels of preparation along functional lines. It is often claimed that administrators need not themselves be able to apply and use techniques such as linear programming or queing theory but they should know what kinds of problems are best suited to quantitative analysis and be able to critically evaluate the results of such applications.

Respondents as a whole indicated a very high degree of curriculum coverage on item j. "Identify problems amenable to quantitative analysis." In fact, this was the skill most commonly covered in the entire list of twenty-two skill areas--97 percent of all respondents said they had had some preparation. Coverage of the two other quantitative skills was also very high at 93 and 96 percent respectively. (It is somewhat difficult to reconcile this almost universal coverage by programs with graduates' perceptions that quantitative methods are far from the most job-relevant topic areas. See the section on curriculum relevance in Chapter V for more data on this point.)

The quality of preparation in Quantitative Methods was judged

to be good or excellent by about half the respondents: only 14 percent on average evaluated it as poor. Preparation leading to skill in the actual use of specific quantitative methods such as linear programming did have a significantly higher percent of "poor" grades (17 percent) than did simply learning to identify problems amenable to quantitative analysis (8 percent), a finding not perhaps unexpected in view of the assumption already mentioned about requisite management skills.

Hospital/Health Administration versus PHA Graduates

Respondents from the two types of programs indicated striking similarities with regard to their preparation in Quantitative Methods. For both groups, the degree of coverage was extremely high, although it was slightly lower for PHA than for HA graduates (93 and 97 percent, respectively). Use of linear programming and other specific techniques was omitted from curricula for considerably more PHA than HA respondents (14 vs. 4 percent). Both evaluated their preparation in very similar terms: on average 43 percent of each respondent group characterized it as fair (30 percent) or poor (13 percent), while 48 to 53 percent thought it had been good to excellent. Both groups gave the highest proportion of poor ratings to item k--Use of linear programming and other techniques.

Personnel Administration and Management Theory

As already discussed, some confusion had arisen out of the Kellogg Commission survey as to the interpretation of findings with regard to personnel administration. In traditional curricula, personnel

administration refers to recruitment, training, staffing, wage and salary policies, grievance handling, etc., while the Kellogg definition either implied a rather different set of skills more usually associated with general or applied management theory, or was silent as to meaning.[1] To clarify this point, the two skill sets were separately presented as the last section of the question on skills preparation.

The survey results indicate that skills associated with personnel administration as traditionally defined were included in curricula for a much lower percent of respondents than were organizational management skills. Moreover, only 30 percent of respondents judged their preparation in the former to have been good or excellent, while 60 percent gave high ratings to their preparation in the latter (making it the best evaluation of the four skill groups considered). These findings strongly suggest that the perceived weakness areas which emerged from the Kellogg study were associated with personnel administration as traditionally defined, rather than with the set of skills implied by the Kellogg definition of personnel administration.

Health/Hospital Administration Graduates

Approximately 80 percent of respondents from health/hospital administration programs indicated that personnel administration had been covered to some degree in their Masters' programs. The topic

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[1] In its questionnaire to employers of program graduates, the Kellogg survey defined personnel administration as "the understanding of human behavior and the administration of such behavior in the organizational environment." In their questionnaire to program graduates, however, only the title "personnel administration" was used, so it is impossible to know what definition respondents had in mind when they answered the question.

covered least frequently, among the four listed, was "Function within the context of a union contract": this area also received the highest proportion of "poor" evaluations (23 percent) where coverage was included. On the other three items, 35 percent of graduates thought their training had been good to excellent, while 17 percent rated it poor.

Organization management and design was included in the curriculum of considerably more respondents. Only 2 to 4 percent reported an absence of coverage for any of the six skill areas listed. Four of the six received high evaluations: 68 to 73 percent of respondents thought their preparation had been good to excellent. The two areas judged of poorest quality were evaluate performance and manage conflict, but even there 50 to 60 percent of respondents evaluated their preparation as good to excellent.

Organization management skills received the best overall ratings among the four broad topic areas investigated by a considerable margin. To summarize very grossly, only one-third of the hospital administration group considered their preparation in financial management and personnel administration to have been good or excellent, about one-half gave similar high ratings to their training in quantitative methods, while three-quarters thought highly of their preparation in organization management.

Public Health Administration Graduates

One-third to one-half of respondents from PHA programs indicated that they had not had any exposure to the personnel

administration topics listed. Fifteen to 20 percent graded the preparation they had received as poor, while a similar proportion thought it had been good or excellent.

Only 8 to 25 percent of respondents in this group reported that the organization management skills listed were not included in their Masters' programs. Evaluate performance and direct subordinates were omitted for the largest portion of respondents, while implementation of change, intergroup coordination, and trend assessment were included most frequently. The proportion of "poor" evaluations ranged from 7 to 17 percent, among the lowest (i.e., best) for the four broad topic areas. (Similar percentages were found under qualitative skills.) Good or excellent evaluations were awarded, on the average, by 50 percent of respondents, with the skill areas most commonly covered receiving the largest proportion of high evaluations (55-60 percent). A relatively low proportion of respondents--only slightly over one-third--judged their preparation for evaluating the performance of people to have been good or excellent.

3. The Residency

One of the major differences among health care administration programs lies in the requirement for a formal residency, practicum or internship. As one aspect of program evaluation, the questionnaire sought to determine whether or not the residency affected graduates'

assessments of their programs.

Respondents were asked whether their programs required a residency, practicum or internship. The resulting data were somewhat ambiguous--responses from graduates of the same programs in the same years did not always agree. Apparently some considered it an option, others a requirement. Whether the residency was optional or required, however, eighty-six percent of all respondents reported that they had completed such a field experience as part of their Master's level program. As indicated in Table VI-4, all of the CHP group, almost all (85 percent) of the hospital/health administration group but less than 60 percent of the public health administration group had served some type of residency. The length of the field experience varied from less than 1 month to 12 months. Half of the hospital administration group had served 10 to 12 month residencies, although one-quarter had had field experiences of only 1 to 3 months. Among the public health administration group, the shorter residency was much more common than the long one--served by 51 and 18 percent respectively.

Evaluation of the Residency

The questionnaire asked respondents to evaluate their residency relative to the academic part of their educational program. As shown in Table VI-5, hospital/health administration graduates rated their residency very highly. More than 40 percent thought it had been the most important part of their program: another 44 percent considered it of equal importance with their academic work. Public health and health-planning respondents were somewhat less enthusiastic. Only 23 percent rated the residency

TABLE VI-4

RESIDENCY OR FIELD EXPERIENCE "REQUIREMENT"

RESIDENCY	ALL RESPONDENTS		HOSPITAL/ HEALTH ADMIN.		PUBLIC HEALTH ADMINISTRATION		HEALTH PLANNING	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Served a Residency	951	86.5	778	95.0	151	58.8	23	100.0
Did Not Serve a Residency	148	13.5	41	5.0	106	41.2	0	-
Total	1,099	100.0	819	100.0	257	100.0	23	100.0
Length of Residency								
Less than 1 month	12	1.3	1	.1	11	7.3	0	-
1 - 3 months	296	31.1	200	25.7	77	51.0	19	36.4
4 - 6 months	86	9.0	57	7.3	27	17.9	2	9.1
7 - 9 months	128	13.5	119	15.3	9	6.0	0	-
10 - 12 months	429	45.1	401	51.6	27	17.9	1	4.5
Total	951	100.0	778	100.0	151	100.1	22	100.0

TABLE VI-5

EVALUATION OF RESIDENCY

EVALUATION OF RESIDENCY	ALL RESPONDENTS		HOSPITAL/HEALTH ADMINISTRATION		PUBLIC HEALTH ADMINISTRATION		HEALTH PLANNING	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
1. Most important part of program	358	37.9	319	41.2	34	23.0	5	22.7
2. Of equal importance to academic work	416	44.0	338	43.6	71	48.0	7	31.8
3. Less important than academic work	136	14.4	99	12.8	30	20.3	7	31.8
4. Of minimum value	35	3.7	19	2.5	13	8.8	3	13.6
Totals	945	100.0	775	100.1	148	100.1	22	99.9
Mean evaluation score	1.84		1.77		2.15		2.36	

as the most important part of their programs while 48 and 32 percent respectively found it of equal importance with their academic work. The assignment of numerical weights in accordance with rank on the scale (1 = Most important, ...4 = Of minimum value) produced the following mean evaluation scores: health/hospital administration group--1.77, public health--2.15, and CHP--2.36.

Evaluation of the Residency by Residency Length

Second, the perceived value of the residency might reasonably vary depending on its length. It would be useful to know whether the shorter residency was perceived to be as valuable as the longer one or whether something was lost (or gained) to the shorter field experience. To make this determination, the different residency periods were again classified into two groups: short (one month or less through six months) and long (seven through eleven months) as in the preceding chapter. The results, presented in Table VI-6, suggest that some relative value was definitely lost in the shorter residency. Less than 20 percent of those who served a short residency evaluated the experience as "very valuable . . . the most important part" of their Master's level program, compared with over 50 percent for those serving the longer residency. Among the "short" residency group, exactly half considered the residency of equal importance to academic work.

The ratings just described were dominated by the hospital/health administration group as they comprised 84 percent of all respondents who served residencies. Graduates of public health administration programs served residencies less frequently, but for

[1]See note on following page.

TABLE VI-6

EVALUATION OF RESIDENCY BY RESIDENCY LENGTH

EVALUATION OF RESIDENCY	RESIDENCY LENGTH					
	ALL RESPONDENTS		HEALTH/HOSP. ADMIN.		PUBLIC HEALTH ADMIN.	
	Short	Long	Short	Long	Short	Long
1. Very valuable - most important part of program	19.3	51.1	20.3	51.6	17.0	42.4
2. Valuable - of equal importance to academic work	49.5	41.1	49.6	49.6	49.1	48.5
3. Of some value but less important than academic work	25.3	6.2	25.8	6.2	24.1	6.1
4. Of minimum value	6.0	1.6	4.3	1.5	9.8	3.0
N =	(368)	(550)	(256)	(517)	(112)	(33)
Mean evaluation score (1 = very valuable... 4 = minimum value)	2.18	1.58	2.14	1.58	2.27	1.70
p Value			.0000		.0109	

those who did the ratings were almost exactly the same as for the hospital administration group.

The value trade-off implied by the above results raises a series of questions about curriculum design. Which is "better"--a program in which field experience is more valuable than academic training, or one in which the two strike a more equal balance? Which offers greater total value? These are obviously complex questions to which the present study can offer no definitive answers. It can, however, indicate how respondents in the two groups rated the overall quality of their Master's level programs, and it has already compared programs for their emphasis on certain curriculum topic areas as a function of residency duration (in Chapter V). A subsequent section examines curriculum weaknesses as perceived by the various respondents.

Evaluation of Programs by Residency Length

The length of the residency or even its complete absence did not have a statistically significant effect on the overall evaluations which respondents gave their Master's level programs. On a scale where 1 = Poor, 2 = Fair, 3 = Good and 4 = Excellent, graduates of hospital/health administration programs gave an average rating of 2.98 to their schools, and the mean score for those who served short and long residencies were 3.06 and 2.93 respectively, not significantly different. Although the data on Table VI-7 indicate that respondents who had served short residencies rated their programs as "excellent" more often than did those who had served long residencies (27 vs. 19 percent), the frequency differences did not prove to be statistically

TABLE VI-7

EVALUATION OF PROGRAMS BY RESIDENCY LENGTH

(In Percents)

EVALUATION OF PROGRAM	HEALTH/HOSPITAL ADMINISTRATION			PUBLIC HEALTH ADMINISTRATION		
	Short Residency	Long Residency	No Res.	Short Residency	Long Residency	No Res.
1. Poor	1.6	1.9	2.3	6.1	5.6	8.6
2. Fair	17.5	22.6	20.5	21.7	36.1	34.3
3. Good	54.5	56.4	45.5	49.6	41.7	40.0
4. Excellent	26.5	19.1	31.8	22.6	16.7	17.1
Mean	3.06	2.93	3.07	2.89	2.69	2.66
N=	(257)	(518)	(44)	(115)	(36)	(105)
p Value	0.1524			0.3621		
Overall mean	2.98			2.77		

significant. The results were similar for the public health administration respondents. They gave an average rating of 2.77 to their programs, a score which did not differ significantly regardless of the length of the residency, or whether one had been served at all. This is, of course, a very gross measure of program quality, but it does not appear to be affected by residency length in any systematic way.

4. Job Placement

Another criterion of program effectiveness related to success with job placement. Graduates were asked to characterize some aspects of their job-finding experience immediately after graduation, and to rate the program faculty and others in terms of their helpfulness with regard to an initial job placement.

The results, shown on Table VI-8, indicate that most graduates found their first jobs with relative ease. Of the 1,080 respondents, three-quarters reported little (22 percent) or no difficulty (54 percent) with their first placement. The proportions were almost exactly the same among the 810 graduates of hospital/health administration programs, nor did these ratios vary significantly by year of graduation. Among the 245 graduates of public health administration programs, the overall proportion reporting little or no difficulty was slightly higher (80 percent) but there were differences between the two graduating classes which are not shown on the table. Only 74 percent of the graduates of 1974 experienced little or no difficulty in finding their first jobs, compared with 87 percent of the class which had graduated two years earlier. Even for the 1974 graduates,

TABLE VI-8

GRADUATES' FIRST JOB PLACEMENT EXPERIENCE, BY TYPE OF PROGRAM

(Percent)

First Job Placement Experience	Graduates by Type of Program		
	All Respondents[1]	Health/Hospital Administration	Public Health Administration
Difficulty in finding first job after graduation			
1) No difficulty	53.8	51.7	60.8
2) Little difficulty	22.1	22.8	18.8
3) Moderate difficulty	16.7	17.5	13.9
4) Considerable difficulty	7.4	7.9	6.5
N =	(1079)	(810)	(245)
Job obtained met original expectations			
1) In full	40.2	41.1	37.2
2) In large part	35.7	36.4	31.6
3) Moderately	16.7	16.2	20.1
4) Not at all	7.4	6.3	11.1
N =	(1055)	(797)	(234)
Job obtained met preferences with regard to type of organization			
1) In full	50.9	54.0	40.9
2) In large part	27.1	26.0	31.3
3) Moderately	13.4	11.9	17.8
4) Not at all	8.5	8.1	10.0
N =	(1043)	(789)	(230)
Job obtained met preferences with regard to level of responsibility			
1) In full	45.6	46.1	43.5
2) In large part	27.6	27.7	27.4
3) Moderately	19.1	19.6	17.0
4) Not at all	7.8	6.6	12.2
N =	(1044)	(790)	(230)

[1]Includes the small group of graduates from independent health planning programs not shown separately.

however, the difficulties were not too severe. Only 8 percent reported considerable difficulty.

The ease with which health-care administration graduates found their first jobs after graduation did not vary significantly by program. The percentage of graduates who had experienced considerable difficulty did not exceed 15 percent in 44 of the 45 programs covered.[1] Put the other way around, 85 percent or more of the graduates of all but one program had no more than moderate difficulty in finding their first jobs. Although we might reasonably hypothesize differences among programs with regard to quality, curriculum, etc., the market apparently was able to absorb the graduates of all varieties of programs in one way or another.

Not only did graduates locate their first jobs without difficulty, but they also found them to be quite satisfactory. As shown in Table VI-8, 73 to 78 percent of all respondents reported that the jobs met their expectations and their preferences with regard to both type of organization and level of responsibility. Fewer than 10 percent were extremely disappointed in any of these aspects of their first positions.

Since job placement is an important concern for many programs, several questions were asked to solicit ratings on the helpfulness of programs (faculty and placement committees) to "students" seeking their first jobs after graduation. As can be seen from Table VI-9, program faculty achieved the highest scores. Almost half of all respondents characterized them as moderately or very helpful. At the same time,

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[1]The exception was one small program in which two out of seven respondents--29 percent--reported considerable difficulty.

TABLE VI-9

GRADUATES' EVALUATIONS OF PROGRAM AND SCHOOL HELPFULNESS IN FIRST JOB PLACEMENT

Helpfulness in Finding First Job	Graduates by Type of Program		
	All Respondents[1]	Health/Hospital Administration	Public Health Administration
Helpfulness of program faculty			
1) Very helpful	26.9	27.1	26.5
2) Moderately helpful	19.1	19.6	15.9
3) Minimally helpful	15.4	16.6	11.9
4) Of no help	38.5	36.7	45.6
N =	(1012)	(760)	(229)
Helpfulness of program placement committee			
1) Very helpful	7.1	8.9	2.0
2) Moderately helpful	6.2	6.8	4.5
3) Minimally helpful	12.3	13.2	10.1
4) Of no help	74.4	71.1	83.3
N =	(897)	(675)	(198)
Helpfulness of school or university placement office			
1) Very helpful	3.5	3.6	2.5
2) Moderately helpful	4.2	4.1	5.0
3) Minimally helpful	10.3	9.6	11.4
4) Of no help	82.0	82.6	81.2
N =	(911)	(685)	(202)

[1] Includes the small group of graduates from independent health planning not shown separately.

more than half thought they had been of minimal help (12-17 percent) or no help at all (37-46 percent). In contrast, 70 to 80 percent of graduates said their program placement committee and school or university placement office had been of no help at all, although there was some difference here between HA and PHA program respondents. Nevertheless, regardless of the help they received from their programs, all but a very few graduates found satisfactory jobs with no more than moderate difficulty. These results, obviously limited with regard to time and nuance (e.g., quality of job, location, salary, etc.), suggest that programs which devote large blocks of time and resources to student placement might well consider some reduction in this activity, at least on an experimental basis, to test whether or not it makes a significant difference.[1]

Continuing Education. It may also be of interest to educators to know that two-thirds of all respondents had taken one or more continuing education courses in their professional fields since graduation from their Master's program. This applied to graduates of 1974 as well as 1972 although the rate was somewhat higher for the latter as compared with the former (69 percent and 64 percent respectively). The vast majority took short courses less than one week in duration. These rather remarkably high rates, coming so soon after graduation (only 3 to 5 years), certainly pique the curiosity. Are they explained by professional requirements, e.g. AHA, do they reflect inadequacies in Master's preparation, or what? Is there a need for continuing education which programs can and should fill, and/or are gaps in curricula simply being exposed. In either case, it would be useful to investigate the matter in greater depth.

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[1]See Note on following page.

NOTE ON FACULTY HELPFULNESS AND DIFFICULTY OF FINDING FIRST JOB

When "difficulty of finding first job" was cross-tabulated with "helpfulness of program faculty," significant differences were found but not a high degree of correlation (Pearson's R = .092). The hypothesis that greater faculty helpfulness resulted in less difficulty in job finding was not consistantly confirmed.

Difficulty in Finding First Job	Helpfulness of Program Faculty				
	Very Helpful	Of Some Help	Of Little Help	Of No Help	N
1. No Difficulty	62	44	35	56	(522)
2. Little Difficulty	22	31	25	19	(233)
3. Moderate Difficulty	14	19	28	15	(177)
4. Considerable Difficulty	3	6	12	10	(77)
	101	100	100	100	
N =	(272)	(194)	(156)	(387)	(1009)

As shown in the table, for example, job finding was more difficult for graduates whose faculties had been of little help than for those whose faculties had been of no help. Also, a larger portion of graduates whose faculties had been of no help found jobs with no difficulty (56 percent) than graduates whose faculties had been of some help (44 percent). Other inconsistencies are easily noted, including the relatively small differences between Columns 1 and 4.

CHAPTER VII

PROCESSES OF PROGRAM EVALUATION AND CHANGE

One of the goals of the research project was to gain some insight into the processes by which programs evaluate and modify their curricula over time, particularly in response to changing professional needs. The conceptual framework for the investigation was outlined in Chapter I, and the results are presented here.

Section 1 describes the review processes which were found to be of common currency among health/hospital and public health administration programs, and assesses the impact of each in effecting curriculum evaluation and change. Section 2 looks at the various groups who participate in the process of determining and adjusting curriculum content. The opportunities for input which alumni had since graduation, and the extent of their participation, are discussed. Finally, various types of faculty activity designed to keep programs current with the "real" health world are reviewed and assessed.

Section 3 presents the study findings with regard to actual changes in program curricula which occurred in the recent past or were planned for the near future. In addition, program director's assessments of appropriate future changes are compared with those of alumni.

1. Review Processes

The first set of questions sought to document the various types of review processes which programs utilized, or were subject to, and the frequencies with which each occurred. An exploratory study had revealed ten different types of review processes clearly distinguishable from each other, at least in the eyes of program directors. Half could be characterized as formal, i.e., required by some official body and occurring with a certain periodicity. The other half were less formal and more frequently imposed by the programs themselves rather than some outside committee or agency. The formal processes included reviews required by one of the following: university, division or department, program, school accreditation, and program accreditation. The other less formal processes encompassed reviews by program curriculum committees, preceptors or other practitioners, students, ad hoc advisory committees and program faculty. In case some important processes had been omitted from the list, respondents were asked to write in any other sources of review for their programs. No other sources appeared with significant frequency. Reviews by alumni and outside consultants were each mentioned by two respondents, while one other program director listed a biannual alumni/faculty/student retreat.

After indicating the types and frequencies of review processes applicable to their programs, directors were asked to rank each one with regard to its impact in effecting evaluation and change in the program's curriculum.

The findings of this two-part question are presented in order

below. Health/hospital administration and public health administration programs are discussed separately because there were significant differences between the two groups.

Health/Hospital Administration Programs

There was considerable variation among the 27 respondents in this group as to the number of review processes which were applicable or operational with respect to their programs. Just under one-half indicated that they participated in seven or more of the ten types of review listed, but 25 percent checked as applicable only five or six of the reviews, and the remaining 25 percent checked four or less. The reviews found in operation most frequently were those by program faculty (78 percent of respondents), program accreditation committees (70 percent), curriculum committees (63 percent), and preceptors or other practitioners (also 63 percent).

The frequencies with which the reviews took place varied more by type of review than by program. University review, for example, took place every five years for most respondents. Student evaluations were every semester, and faculty reviews were either ongoing, every semester, or annually.

In evaluating the various review processes with regard to curriculum evaluation and change, respondents uniformly assigned the greatest impact to the reviews in which the program faculty or the program itself were most intimately involved, i.e., formal or informal review by program faculty (or, in its absence, a program curriculum committee) and program accreditation.

Where it existed, departmental or divisional review was assigned considerable impact as well. Student reviews and evaluations were in fourth or fifth place, generally after the above. Neither school accreditations nor required university reviews were assigned much impact by any of the program directors--they came at the bottom of the rankings for all but one respondent.

Public Health Administration Programs

Nine public health administration program directors (out of 17) responded to the survey, although not all questionnaires were filled out completely. The types of review processes found most frequently among these programs/departments differed somewhat from those just described for hospital/health administration programs. One type of review was found to be universal. It was review for school accreditation, a formal requirement for all schools of public health. This apparently occurred for most respondents at intervals of about five years. The incidence of school accreditation among hospital/health administration programs was significantly lower. All but one public health program indicated that its students gave their evaluations regularly, either once or twice a year. Divisional or departmental review was somewhat more common among public health administration programs than HA programs, while review by program faculty was considerably less common, probably reflecting to some degree differences in the academic/administrative structures of the two groups. Reviews for program accreditation were almost completely absent.

Perceptions of the relative impact of these review processes

in effecting evaluation and change in curricula also differed somewhat from HA assessments. School accreditations were given top ranking by the majority of respondents. Next came program faculty or curriculum committees but there was considerably less unanimity here than among HA respondents. Divisional or departmental review was somewhat lower on the scale, but slightly above student evaluations. The other review processes were either infrequent or judged to be relatively unimportant with regard to the impact being assessed here.

2. Determination of Curriculum Content

Sources of Input

Program directors were asked to assess various sources of input--alumni, preceptors, students, faculty, etc.--according to their relative impact in determining the curriculum content of their programs. Those sources which were not ranked by individual respondents were considered not applicable, i.e., they either had no input or no impact. Thus frequency of appearance as well as rank position were indicators of relative importance.

Responses for hospital/health administration programs were both more numerous and more complete for this question, and therefore of considerably greater statistical significance than responses from PHA program directors. Twenty-five HA programs provided complete rankings. Opinion was unanimous that full-time faculty had the most impact in determining curriculum content. Not only was this source of input checked most frequently (by all 25 respondents) but 23 ranked it as number 1, and two as rank 2. This was clearly the dominant element

in curriculum determination for everyone in this group.

Part-time faculty were ranked second, students and accreditation commissions followed. Alumni and preceptors tied for fifth and sixth place. Directors and faculty of other programs, health professionals, consultants and consumers followed in that order, all being assigned an average ranking score in excess of 6.9.

Only seven directors of public health administration programs provided complete rankings for this question. The results, though less reliable, tended to reinforce the findings already described for HA programs. Full-time faculty were again unanimously accorded first place. Part-time faculty occupied a significantly lower position (fifth or sixth) but accreditation commissions, students, and preceptors held almost exactly the same rankings. Alumni and consumers achieved a slightly higher ranking among PHA programs than they did with the HA group, but the significance of these differences should be subjected to further testing in view of the relatively small sample.

According to program directors, both students and alumni had some input to and impact on, curriculum content though their influence was subordinate to a number of other groups. In the survey of graduates, alumni were asked how responsive their programs had been to student inputs at the time they were enrolled, and to indicate in some detail their opportunities for and participation in program curriculum affairs since graduation.[1] The results are shown on Table VII-1.

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[1]For the precise wording of these questions, see Appendix, Survey of Master's Degree Graduates . . . , #F2 and 3, page 9.

TABLE VII-1

STUDENT AND ALUMNI INPUTS INTO PROGRAM CURRICULUM CONCERNS
(Percent)

Student and Alumni Inputs	All Grads	Hosp./Hlth. Admin. Grads	Public Hlth. Admin. Grads
Responsiveness of programs to student inputs			
1) Very responsive	24.1	23.5	27.1
2) Moderately responsive	43.1	44.0	40.4
3) Slightly responsive	28.2	28.2	27.1
4) Not responsive at all	4.7	4.3	5.5
N =	(1096)	(818)	(255)
Opportunities for input to program since graduation			
a. Surveys by program			
Did have opportunity	59.8	60.8	57.2
Did participate	87.8	88.7	85.9
b. Special meetings			
Did have opportunity	53.0	59.3	33.9
Did participate	43.6	44.9	37.2
c. Informal communication with faculty			
Did have opportunity	71.1	73.4	64.8
Did participate	82.6	81.0	87.4
d. Continuing education for alumni			
Did have opportunity	58.4	65.9	33.9
Did participate	38.2	40.0	30.1
N =	(1,025)	(785)	(240)

One-quarter of all graduates characterized their programs as having been very responsive to students, and another 43 percent thought they had been moderately responsive. There were three programs which were rated as very responsive by more than 50 percent of their alumni.

Graduates also reported frequent opportunities to offer inputs to their programs with respect to curriculum objectives, evaluation, design, etc. The most common opportunity was informal communication with faculty, available to approximately 70 percent of respondents. Some 80 percent of the alumni who were presented with this opportunity made use of it, i.e., did participate. This tends to reinforce the observations made elsewhere in this chapter about the central role of faculty (as monitor of the real world) and to show that there is, in fact, a very considerable amount of informal contact between faculty and alumni. Surveys by programs were reported by 60 percent of respondents, and almost 80 percent claimed to have participated. Continuing education programs were offered to a similar proportion of alumni, but only 40 percent participated. The participation rate for special meetings was only slightly higher. It was apparently easier for alumni to communicate informally or by mail than to attend meetings at an appointed time and place.

In addition to the various opportunities discussed above, alumni wrote that they had also participated in program committees for student selection, faculty selection and curriculum (17 respondents), and had attended regular alumni meetings (24 respondents). Nine respondents served as program preceptors or faculty.

Faculty Activity

The central role of the faculty in determining curriculum content, and in evaluating and changing the curriculum over time, had been suggested by the results of the preliminary survey. Assuming that this would be confirmed in the final survey, several questions were added to gather opinions on how faculty could best keep themselves--and, by implication, their programs--aware of and responsive to changing professional needs. Everyone who responded to the survey agreed that one of the best means was to have faculty actively participate in the real health world. To produce a more operational definition of this concept, the questionnaire provided a list of seven types of faculty activities, again culled from the preliminary survey, and program directors were asked to rank them in terms of their usefulness in keeping faculty, and programs, responsive to changing needs.

The results are presented in Table VII-2. Between 30 and 32 respondents ranked each item from 1 (most useful) to 7 (least useful). An additional three respondents refused to give any rankings. Two of them considered all seven activities to be of equal importance, and one thought relative importance was completely dependent on the teaching area.

The results for those who completed the rankings were initially analyzed separately for directors of health/hospital and public health administration programs. No significant differences in rankings were found, however, so the results have been combined for presentation and analysis here.

TABLE VII-2

RANKING OF FACULTY ACTIVITIES RE USEFULNESS IN KEEPING PROGRAMS RESPONSIVE TO CHANGING PROFESSIONAL NEEDS

Faculty Activities	Mean Rank Score	Rank[1]						
		1	2	3	4	5	6	7
		(Frequencies)						
1. Applied research	2.6	10	10	5	1	2	4	0
2. Supervising student projects	3.3	6	3	12	5	3	0	3
3. Consulting	3.6	5	4	7	6	5	3	2
4. Community service	4.0	2	7	3	4	8	7	1
5. Government advisory committees	4.3	5	3	2	5	5	5	6
6. Faculty in continuing ed programs	4.3	2	3	2	9	6	6	2
7. "Pure" research	5.8	1	2	1	2	3	5	16
		N = 32						

[1]Rank 1 = Most useful.

As can be seen from a perusal of the frequencies with which each activity was ranked in Table VII-2, there was not a high degree of consensus among program directors except for the two extremes. The most useful activity was clearly thought to be applied research, and the least useful, by a considerable margin, "pure" research. The other activities--supervising student projects, consulting, community service, government advisory committees and teaching in continuing education programs--are listed in order of their mean rank scores. The differences in mean scores between adjacent items are very small, however, reflecting the considerable spread in opinions about each activity. Each had its devotees and detractors. Community service, for example, was ranked at the top (1 or 2) by 9 respondents, and at the bottom (6 or 7) by 8 others. No activity failed to achieve rank 1 at least once, and only two cells in the entire matrix were empty. At the same time, it is possible to make some valid paired comparisons. For example, faculty supervision of student projects was on average, considered more useful than was faculty participation in continuing education programs or government advisory committees.

These results indicate only the attitudes and opinions of respondents, based on history, experience and perhaps the needs of different programs in different environments. Conclusions as to the actual superiority of one type of activity over another cannot be drawn, at least not from these data alone. What can be observed is the pervasive feeling that it is essential for faculty to maintain

active, participatory roles in the real health world.

This conclusion was confirmed by findings on a subsequent question in which respondents were asked to give their own opinions on the most effective means for keeping curricula responsive to changing needs. The vast majority of responses reiterated the absolute necessity for having faculty involved in the real health world. Most respondents talked in terms of the activities already discussed--applied research, consulting, etc. A few mentioned other kinds of participation such as paid positions in the field, participation in curriculum activities of professional organizations, and other involvement with local, state and national professional organizations. Feedback from alumni and employers of alumni were mentioned several times as an important aspect of an ongoing dialogue with practitioners. Only two respondents explicitly advocated the involvement of adjunct faculty in the teaching program, or in the formulation of curriculum. One program director thought the best method for achieving responsiveness would be to change program directors every four years. Several others stressed the need for faculty to discuss and attempt to predict the future, but the vast majority of responses reflected a reactive, rather than a proactive approach to curriculum planning and design. With one exception, no one challenged the assumption that responsiveness was desirable, and that change was a natural concomitant of,if not synonmous with, responsiveness. The challenger maintained that, given a cohesive curriculum based on a well-defined body of knowledge, the best guarantee of responsiveness was quality faculty and students.

3. Changes in Curricula--Past and Future

To supplement the data on the process of curriculum evaluation and change, the study sought to document changes in the content and emphasis of program curricula which had actually occurred in the past three to five-year period as well as changes which were being planned or considered for 1980-82. The findings of these two separate inquiries are discussed in turn below.

Past Changes

Program directors were asked to characterize the changes in emphasis which had actually been effectuated in their curricula during the past three to five-year period in terms of the eighteen curriculum subject areas used throughout the study. For each topic area respondents could check "1-Increased Greatly," "2-Increased Moderately," "3-Unchanged" or "4-Reduced" to indicate the direction and degree of change. To conserve space and simplify interpretation, the results are presented in the left-hand columns of Table VII-3 in slightly abbreviated form. Only the frequency of responses 1 and 2 (increases) are indicated. By and large, fewer than 15 percent of respondents indicated that there had been any reductions in emphasis in any single topic area, so those cells had only zeros or relatively small percentages in them anyway. Indeed, the frequency with which alternative 3 (emphasis unchanged) was checked can be approximated with fair accuracy by subtracting the frequency of increases (shown) from 100.

Hospital/Health Administration Programs

The topic area which received the greatest increase in emphasis

TABLE VII-3

CHANGES IN CURRICULUM EMPHASIS BY TYPE OF PROGRAM: PAST AND PLANNED
(Percent)

Change in Emphasis During Past 3-5 Years				SUBJECT AREAS	Changes Planned for 1980-1982			
Hospital/Health Admin. Programs		Public Health Admin. Programs			Hospital/Health Admin. Programs		Public Health Admin. Programs	
Increased Greatly	Increased Moderately	Increased Greatly	Increased Moderately		Will Inc. Greatly	Will Inc. Moderately	Will Inc. Greatly	Will Inc. Moderately
12	44	0	63	1. General Administrative Theory	8	42	13	38
36	36	13	63	2. Applied Administrative Theory	15	50	13	38
24	44	0	25	3. Health Care Organization	8	50	0	25
0	20	0	25	4. Medical/Nursing Practice	4	35	0	13
0	32	0	38	5. Public Health Administration	0	27	13	25
24	44	25	25	6. Comprehensive Health Planning	12	46	0	50
56	24	50	38	7. Financial Management	50	35	38	38
16	44	0	50	8. Personnel Administration	12	38	13	50
24	36	0	38	9. Industrial Relations	12	42	13	63
8	36	13	13	10. Interpersonal Skills	23	19	13	50
32	32	38	13	11. Information Systems/Computers	19	38	13	63
44	36	38	38	12. Quant. Methods/Applied Statistics	15	50	50	13
20	36	38	38	13. Economics	8	19	25	38
8	32	13	38	14. Research Methodology	8	23	25	25
12	36	13	38	15. Health Law	0	38	38	25
0	20	0	38	16. Medical Sociology	8	23	0	50
4	16	0	25	17. Epidemiology	8	23	0	38
20	36	13	63	18. Gov't Relations/Political Science	19	58	0	63
N = 25		N = 8			N = 26		N = 8	

among these programs was Financial Management. Fifty-six percent of respondents indicated greatly increased emphasis and 44 percent claimed moderately increased emphasis. A similar percentage of respondents indicated increases in Quantitative Methods/Applied Statistics although slightly fewer characterized the increase as "great." Applied Administrative Theory was increased with third highest frequency (72 percent of respondents), equally divided between great and moderate increases. Health Care Organization, Comprehensive Health Planning, Information Systems, Industrial Relations, and Personnel Administration followed in descending order. Among those areas in which emphasis remained relatively unchanged were Medical/Nursing Practice, Medical Sociology, Epidemiology and Public Health Administration. Ten to 15 percent of respondents did indicate an actual reduction of emphasis in all four of the topic areas just listed, and in research methodology as well.

Public Health Administration Programs

The list of curriculum topic areas receiving increased emphasis among PHA programs was similar in many respects to that just discussed for HA programs. Judging from this question, at least, it would appear that PHA programs were revising their curricula to more closely resemble those found among HA programs. In order of increased emphasis the PHA programs (8 in all) listed: Financial Management, Quantitative Methods, Economics, Applied Administration Theory and Government Relations. At the bottom end of the scale, i.e., topic areas in which emphasis increased the least, were Health Care Organization, Medical/

Nursing Practice, Interpersonal Skills, and Epidemiology.

Changes Planned for 1980-82

When asked to characterize the degree to which their 1980-82 curriculum would differ from the present one (1976-77) almost 70 percent of all program directors said they anticipated only moderate differences. One-quarter did foresee major differences, and one respondent thought the future curriculum would be completely different. Only two respondents (6 percent) anticipated virtually no differences.

The types of planned changes for which documentation was sought included the addition of new concentration areas or tracts, changes in class size, and shifts in curriculum emphasis. Each of these is discussed in turn below. The data for HA and PHA programs were combined unless they showed significant differences.

New Concentration Areas

Fourteen out of 34 respondents were definitely planning to add new "specialty" or concentration areas to their curricula, while 10 others were considering such a move but had made no final decisions. The remaining 10 respondents did not anticipate any changes in concentration options.

Among health/hospital administration programs, the concentration area most commonly being considered for addition (by 8 out of 18 respondents) was health planning. It is believed that this term encompassed both comprehensive and institutional planning, but the descriptions were not complete enough to draw the distinction, if indeed

there was one. Long-term care administration and financial management were each mentioned five times; ambulatory care administration and health regulation each appeared three times. Health policy, health economics, and information systems were being considered by two respondents, and mental health administration, personnel administration, marketing, quantitative methods, and "the small enterprise" were each listed once.

Among the public health administration group, only 4 out of 6 respondents indicated the concentration areas they were considering, but 3 of the 4 mentioned long-term care administration. Each of the following was listed once: hospital administration, mental health administration, ambulatory care and health planning.

Class Size

Anticipated increases in class size were somewhat more frequent, and of considerably greater magnitude, among health/hospital administration programs than PHA programs. Forty-five percent of the former planned to enroll more students, the increases ranging from 25 percent or less in half the cases to an average of 60 percent for the other half. Only one-third of the PHA programs anticipated changes in class size, and none of these increases was in excess of 25 percent.

Changes in Curriculum Emphasis

Program directors were asked to characterize, on the same scale as discussed above, the extent of changes in curriculum emphasis anticipated for 1980-82. Since the survey was conducted in 1977,

this offered a three to five-year planning framework. As shown in the right-hand columns of Table VII-3, further great and moderate increases in Financial Management were planned for the 1980 curriculum by both HA and PHA programs, increases which appeared to be of a magnitude comparable with those which had been made in the prior three to five-year period. For HA programs, only Interpersonal Skills were to increase greatly for more than 20 percent of respondents, but Government Relations, Applied Administration, Health Care Organization and Quantitative Methods were scheduled for moderate increases in emphasis for 50 percent of the programs or more. Virtually no reductions were indicated.

For PHA programs, Quantitative Methods and Health Law were scheduled for greatly increased emphasis in 40 to 50 percent of the cases while Industrial Relations, Government Relations, Comprehensive Health Planning, Personnel Administration, Interpersonal Skills, Information Systems and Medical Sociology were to increase moderately for 50-65 percent of respondents.

It is interesting to compare the plans which program directors had for increasing curriculum emphasis in 1980-82 with those that graduates recommended in response to a similar question. Table VII-4 gives the results of the graduate survey. The degree of agreement between health/hospital and public health administration graduates was quite striking. The five subject areas which the largest portion of both groups thought should receive more emphasis in future were identical, and arranged in the same rank order. From first to fifth

TABLE VII-4

GRADUATES' OPINIONS ON TOPIC AREAS NEEDING MORE EMPHASIS IN THE CURRICULUM FOR 1980-1982

Topic Areas Needing more Emphasis in Curriculum for 1980-1982	Graduates by Type of Program[1]					
	Total		Hospital/ Health Admin.		Public Health Admin.	
	Per-cent	Rank	Per-cent	Rank	Per-cent	Rank
1. General Administrative Theory	4.6		4.5		5.0	
2. Applied Administrative Theory	11.6		10.8		14.2	
3. Health Care Organization	12.9		12.8		13.5	
4. Medical/Nursing Practice	5.4		6.0		3.5	
5. Public Health Administration	2.2		1.8		3.5	
6. Comprehensive Health Planning	23.9	3	25.1	3	20.4	3
7. Financial Management	59.6	1	65.6	1	40.8	1
8. Personnel Administration	15.3		15.1		16.2	
9. Industrial Relations	16.2		18.4		9.2	
10. Interpersonal Skills	16.5		15.7		18.8	
11. Information Systems Computers	18.9	5	18.7	5	19.6	5
12. Quantative Methods/Applied Statistics	9.9		9.0		12.7	
13. Economics	5.4		4.1		9.2	
14. Research Methodology	3.6		1.9		8.8	
15. Health Law	21.9	4	22.6	4	19.6	4
16. Medical Sociology	5.0		3.5		9.6	
17. Epidemiology	2.8		1.3		7.3	
18. Gov't Relations/Political Science	39.6	2	44.0	2	25.4	2
N =	(1082)		(822)		(260)	

[1]Percent of all respondents who listed the given topic area once. Each respondent in the survey had three possible opportunities to list an area. Columns would add to 300 percent if all respondents had answered the questions in full.

they were: Financial Management, Government Relations/Political Science, Comprehensive Health Planning, Health Law, and Information Systems/Computer Applications. Financial Management was listed by a larger share of the HA group than the PHA group (66 and 41 percent respectively), also true for Government Relations. Nevertheless, the similarity of rankings if not their intensities, indicates a growing convergence of interests with regard to the future education of both professional groups, at least in the eyes of alumni.

A comparison of alumni responses with the responses of program directors as to the topic areas which will receive more emphasis in the curriculum for 1980-82 are (roughly) as follows:

HA and PHA Alumni	HA Program Directors (26)	PHA Program Directors (8)
Financial Management	Financial Management	Financial Management
Gov't Relations	Gov't Relations	Quantitative Methods
Health Planning	Quantitative Methods	Health Law
Health Law	Applied Administration	Information Systems
Information Systems	Information Systems	Industrial Relations
	Health Planning	Economics

For the hospital/health administration group the comparison shows a high degree of consensus. HA program directors did not share alumni opinions on the need for more Health Law, but did see a need for more emphasis on Quantitative Methods and Applied Administration--needs not perceived by alumni. Otherwise the areas to receive more emphasis were identical. The data for PHA program directors were less reliable due to the small number of respondents and they show

considerably less agreement with alumni opinions, overlapping in only half of the curriculum topic areas. There was, nevertheless, a great deal of unanimity on the need for more (or better) preparation in Financial Management. As other parts of the study revealed, Financial Management was of high relevance for many graduates in many different settings. The vast majority of those in the classes of 1972 and 1974 considered their preparation in this area only fair or poor (or non-existent), and indicated it was often the weakest part of their curriculum. Both health/hospital and public health administration programs had already recognized the need for better preparation in this area, and planned to continue to devote more emphasis to the topic in the near future. For both groups, however, there appeared to be a large discrepancy between faculty and alumni with regard to perception of the need for more emphasis in Quantitative Methods. Graduates did not perceive the need, a finding confirmed in all portions of the study where need or relevance were examined.

CHAPTER VIII

SUMMARY AND DISCUSSION

Graduates of Master's level programs in health/hospital administration (HA) and public health administration (PHA) were employed in all major sectors of the health care system, though some sectors were considerably more important than others. Among the 1,180 graduates of 1972 and 1974 who responded to the survey, 600 were working in short-term hospitals in 1977. Hospitals completely dominated the employment picture for the 825 HA graduates, accounting for almost 70 percent of the jobs held by those working in health. However, this high percentage was not uniform among all HA programs: four had fewer than 50 percent of their graduates in hospitals. Also, significantly fewer women than men from the class of 1974 were employed in a hospital setting.

Public health administration graduates were dispersed more broadly among the eleven types of organizational settings distinguished in the survey.[1] Most (70 percent of the 260) were working in health-related, as opposed to personal medical service organizations. The largest group of graduates--just over 20 percent--were located in public health agencies. Almost as many were working in medical

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[1]Short-Term Hospital ; Long-Term Facility; Ambulatory Center; HMO; "Other" Personal Medical Service; Public Health; Health Planning; Research/Consulting; Medical School/"Other" University; Administrative/ Regulatory; and "Other" Health Related.

schools and "other" university settings. Hospitals employed over 10 percent, but none of the other settings accounted for more than 7 percent of the graduates.

A small number of respondents (79) indicated that they were not working, either full or part-time, in the health field. Approximately 3 percent of HA respondents and 12 percent of PHA respondents were in this category. Some were employed, but not in health, others were pursuing further graduate studies, a few were not interested in working at the time. Only 13--1 percent of all respondents--reported that they were unemployed, i.e. without jobs and looking for work. These numbers, however, do not accurately reflect the total number of graduates who were not working in health. The 300 to 400 people who did not respond to the questionnaire, and could not be traced, might have left the field, or been unemployed, at somewhat different rates.

Employment trends among graduates appeared to be fairly stable. No major shifts in employment patterns were discernable, even where the data base was extended back to 1971 via the Austin survey for the Kellogg Commission Report. The proportion of HA graduates going into short-term hospitals may have risen somewhat during the six-year period--from 63 to 68 percent--but noncomparability of the two data sets made it impossible to state that conclusion definitively. Stability in the hospital employment rate was quite remarkable in view of the fact that the number of HA graduates doubled between 1970 and 1975, reaching approximately 1,100 by the latter year. HA graduates went into nonhospital settings in very small numbers; with the

exception of consulting/research firms, no other type of organization employed more than 3.5 percent.

The data thus supply no hint of trends with regard to where graduates would go should hospitals cease to absorb them at the same high rates. Directors of hospital/health administration programs, when polled in the course of the survey, were unanimous in their opinion that hospitals would provide either the same or fewer job opportunities for their graduates in the future. They saw new opportunities opening up primarily in ambulatory care, health planning, long-term care facilities, and consulting/research organizations. No evidence was produced by this study to suggest that hospitals were on the decline as employers of HA graduates, nor that graduates were in over-supply. Nevertheless, the situation should be carefully monitored in view of the very dominant role hospitals currently play in the employment field.

Public health administration graduates of 1972 and 1974 showed no statistically significant differences in employment patterns. It was not possible to make an exact comparison with the Austin survey for the Kellogg Commission Report, but the limited data available suggest at least the possibility of some expansion in employment by public health agencies between the time of the two studies. In the opinion of PHA program directors, however, public health agencies were considered, along with hospitals, the least likely source of expanded opportunities for future graduates. The most promising organizational settings were thought to be regulatory and administrative

agencies, long-term care, health planning, and ambulatory care.

An analysis of the geographic location of graduates showed a high degree of association with population, though the correlation was higher for HA than PHA graduates. For the nine United States census divisions, the rank correlation coefficient was .95 for the former and .77 for the latter. At the time of the survey, approximately one-half of all respondents were still located in the geographic division from which they had graduated, i.e. in the same division as their Masters' level program. However, this percentage ranged from a high of 90 percent in the East South Central division (Kentucky, Tennessee, etc.) to a low of 25 percent in the West North Central division (Minnesota, Iowa, etc.). Analysis of the flows of HA graduates among regions via a "regional trade" model revealed a complex pattern of interrelationships, suggesting that all such programs serve both local and national markets to some degree.

The characteristics of the organizations which employed health administration graduates, and the types of jobs which graduates held, were explored at considerable length because of their crucial importance for curriculum design. All but 10 percent of respondents were found to be working in either private, nonprofit or governmentally sponsored organizations. Private sponsorship was more common for HA than for PHA graduates: the percentages were 60 and 36 respectively. However, the percentage of PHA graduates employed in private, nonprofit organizations showed a significant increase (from 26 to 43 percent) when the 1972 and 1974 graduating classes were compared.

The majority (55 percent) of PHA graduates were located in governmental organizations, compared with 30 percent of HA graduates.

On average, HA graduates worked in larger organizations than did PHA graduates. Size was measured in terms of number of employees at the location of employment, so a respondent working in a local governmental office did not include employees at the state or national levels. On this basis, almost two-thirds of HA graduates were in organizations with more than 500 employees, compared with less than 40 percent of PHA graduates. The largest group of PHA graduates (40 percent) were in small organizations having fewer than 100 employees.

The types of jobs which graduates held were explored along several different dimensions. In terms of the general scope and nature of their responsibilities, half of the HA graduates held line (as opposed to staff) positions, compared with 30 percent of PHA graduates.[1] The PHA group more commonly combined line and staff responsibilities, or held purely staff jobs. The large administration/management component of HA jobs was also reflected in the data on supervisory responsibilities. Almost 40 percent of HA graduates supervised units with more than 100 employees. Only 6 percent of PHA graduates were in similar positions: the majority (56 percent) administered units with fewer than 20 employees.

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[1]There were, however, significant differences between the two HA graduating classes: the class of 1974 held staff or combined line-staff jobs with higher frequency than did the class of 1972 (58 versus 42 percent), suggesting at least the possibility of a change in the type of entry-level positions available to more recent graduates. A longitudinal study would be needed to determine whether this shift represented a real change or simply a normal career progression from staff to line.

A considerable number of respondents held the top administrative position in their organizations (at their location). For both the HA and PHA groups the figure was 16 percent. Approximately half of the HA graduates were at the next lower administrative level, and one-third below that (with two or more levels above them). There were significant differences between 1972 and 1974 HA graduates, with those who had been working longer occupying a larger percentage of top and second-level positions. PHA graduates were more often found in the lower administrative echelons: almost half had two or more administrative levels above them, and there were no significant differences between the two graduating classes. Salaries among the various groups of graduates were in line with these findings. Mean salary levels were higher for HA than for PHA graduates, and the differential between 1972 and 1974 graduates in each group was greater. Women appeared to earn equal or better salaries than their male classmates immediately after graduation, but to fall behind either relatively or absolutely in succeeding years.

The principle on-the-job activities of the graduates in the various organizational settings had a number of commonalities, but showed important differences as well. Respondents working in organizations which delivered personal medical services painted very similar pictures of their jobs. Those at the top, or at the assistant level, had general administrative responsibility for fairly large health care delivery units. In all of these settings, the graduates' principle activities included departmental supervision and control, program

planning, budgeting (most frequently control, less frequently preparation and planning), program evaluation, and some personnel matters. Although these activities varied somewhat in relative weight among those located in the five personal medical service organizations, as indicated by the relative frequency with which they were mentioned, the respondents as a whole clearly played general managerial roles with all of the responsibilities normally associated with those positions. Relatively few respondents (7 percent) were working at lower administrative levels in personal medical service organizations. These few, however, had more specialized jobs--personnel, purchasing, systems analyst, membership forecasting and marketing, etc.--with considerably lower general administrative content.

Graduates located in organizations which were health-related but did not primarily deliver personal medical services described a more diverse set of on-the-job activities than those in personal service units. General administrative responsibilities--supervisory, budgetary, etc.--were present to some degree, but they were both less pervasive and less intense. This was due in part to the smaller size of many of the organizations in this category, but more importantly to the structure and function of the organizations themselves, and to the types of roles filled by graduates working in them.

Because of their diversity, it is difficult to accurately summarize these roles in a few descriptive phrases. By and large, respondents--the majority of whom were PHA graduates--supervised relatively small administrative units (fewer than 20 people) or were

not responsible for an administrative unit at all. Graduates in public health and regulatory/administrative agencies of the government indicated that their jobs were very program oriented. Program planning and development were the activities mentioned most frequently, though program evaluation and/or compliance was not too far behind. General management activities, though often cited, were definitely secondary. Graduates working in health planning agencies cited plan development and project review as their principle functions. General administrative responsibilities were minimal in comparison with most other organizational settings, while plan development, evaluation and coordination activities were most extensive. Jobs in consulting/research firms were similar in that they had a very small (often zero) general administrative component. They also appeared to require the exercise of technical expertise, be it systems design, forecasting, computer programming or financial management, to a higher degree than most other settings. Graduates located in medical schools or in other schools of large universities were primarily engaged in teaching and research, but about one-third held administrative positions in connection with a particular academic program. The majority had some general management responsibilities, but they were relatively limited in scope because of the nature and small size of the units involved.

The different patterns of employment and job responsibilities held by graduates were reflected in their judgments of curriculum relevance, the primary research question of the study. Hospital/health administration graduates ranked various curriculum topic areas

in a different order from that given by PHA graduates. It was even possible to discern differences by type of organization, regardless of whether the respondent was an HA or PHA graduate. The relevance analysis was quite detailed, and only a few of the most interesting findings are cited here.

Given a curriculum taxonomy consisting of 18 topic areas, graduates recorded the degree of relevance each topic area had, vis-à-vis their present jobs, and also the degree to which their programs had emphasized each of the topic areas at the time the respondents were enrolled three to six years earlier.

HA graduates indicated that for them the five most relevant topic areas were, in order: Financial Management, Interpersonal Skills, General and Applied Administrative Theory, and Health Care Organization. For PHA graduates the analogous topic areas were: Interpersonal Skills, Government Relations, General Administrative Theory, and Medical Sociology. HA and PHA graduates were thus in agreement on the high relevance of Interpersonal Skills, General and Applied Administrative Theory, and Health Care Organization. Judgments as to areas of mid-level relevance also showed some commonalities--Comprehensive Health Planning and Medical/Nursing Practice, for example. The biggest differences between the two sets of graduates were found in the areas of Financial Management, Epidemiology, Public Health Administration and Medical Sociology. HA graduates accorded Financial Management the highest relevance ranking among all the topic areas while PHA graduates rated it of

mid-level relevance. PHA graduates, on the other hand, rated Epidemiology, Public Health Administration and Medical Sociology as much more relevant than did HA graduates, though none of these was ranked among the five most relevant areas even by PHA graduates.

Similarities and differences in relevance rankings were also evidenced by graduates in the different organizational settings. Interpersonal Skills, for example, was ranked among the five most relevant topic areas in every one of the eleven organizational settings. No other topic area achieved this degree of importance or unanimity. Quantitative Methods was ranked among the topic areas of least relevance in seven settings. In only one type of organization--research/consulting--did it receive a ranking higher than 10 (out of 18). Epidemiology and Economics were also among the topic areas of lowest relevance in all but a few settings. Epidemiology ranked above 11 only among graduates in public health agencies, while health planners were the only group to accord Economics a relatively high relevance ranking. Health planners were also unusual in that they did not consider General or Applied Administrative Theory highly relevant to their jobs, and they were the only group which gave Comprehensive Health Planning the top ranking.

The tables and discussion in Chapter V-Section 1 suggest many other commonalities and differences which should be of use to readers interested in curriculum design. The data indicate not only those curriculum areas which were of highest and lowest relevance to HA and PHA graduates, but also those which were relevant to the broadest array

of organizational settings, and those which were of unique relevance to particular settings.

Graduates also rated the degree of emphasis which their Masters' level programs had given to the same eighteen curriculum topic areas. These ratings were, of necessity, retrospective, reflecting graduates' recollections of the educational programs they had attended four to six years earlier. The ratings are detailed in Chapter V-Section 2, and need not be repeated here. It might be mentioned, however, that there were significant differences in emphasis among the individual programs, as seen by their graduates, and, also, that the length of the residency period had some effect on the emphasis ratings. Although of some interest in themselves, the emphasis ratings were of primary interest in terms of their relationship to the relevance ratings. It was assumed that a completely relevant curriculum would produce relevance and emphasis ratings which matched: there would be no important differences between the two ratings in any topic area, whether the area was perceived to be of high or low relevance. The existence of any large discrepancies or "mis-matches" would, therefore, signal curriculum areas which needed further investigation and, if necessary, modification via increased (or reduced) emphasis.

Graduates of HA programs indicated that on-the-job relevance and cirruculum emphasis had been reasonably well-matched in nine of the eighteen curriculum topic areas. The areas of high and mid-level relevance which were well matched included General and Applied Administrative Theory, Health Care Organization, Health Law, and

Comprehensive Health Planning. All areas of lowest relevance--Research, Medical Sociology, Economics, Public Health Administration and Epidemiology--showed good matches as well.

The most serious discrepancies in the ratings by HA graduates were associated with Financial Management and Interpersonal Skills, both of high relevance, as well as Government Relations, Personnel Administration, Medical/Nursing Practice, Information Systems/Computers, Industrial Relations, and Quantitative Methods, all of mid-level relevance. In all of these topic areas except Quantitative Methods relevance ratings exceeded emphasis ratings by very significant margins, signaling the possible need for increased coverage in the HA curriculum. The opposite conclusion would have to be drawn with regard to Quantitative Methods where emphasis ratings were well in excess of those for relevance.

Among PHA graduates, four of the five curriculum topic areas of highest relevance had emphasis and relevance ratings which were well matched. There were no significant discrepancies between the ratings in General Administrative Theory, Government Relations, Health Care Organization or Applied Administrative Theory. The single exception was Interpersonal Skills, where the relevance rating exceeded the emphasis rating by a very significant margin. Among topic areas of mid-level relevance large discrepancies were associated with Financial Management and Medical/Nursing Practice, where relevance exceeded emphasis ratings, and with Epidemiology, Health Planning, and Public Health Administration where emphasis ratings exceeded those for

relevance. Four of the five topic areas of lowest relevance were also discrepant. The largest differences were associated with Personnel Administration and Information Systems/Computers where relevance exceeded emphasis ratings. Quantitative Methods/Statistics showed a significant difference in the opposite direction, i.e. emphasis exceeded relevance.

Graduates offered specific evaluations of their educational programs along a number of different dimensions. In terms of overall quality, based on personal experience since graduation, over 70 percent of all respondents characterized their programs as good (50 percent) or excellent (20 percent). Approximately 20 percent of HA respondents, and 25 percent of PHA respondents thought their programs had been only fair or poor. There were significant differences among programs with regard to this overall rating: four of the 30 HA programs, and one of the 13 PHA programs were considered fair or poor by more than 50 percent of their alumni, while two HA and two PHA programs were judged excellent by more than half of their graduates. There was clearly a difference in quality among the programs, at least in the eyes of alumni.

Opinions as to the strongest and weakest areas of their programs reinforced the findings of the relevance/emphasis ratings reviewed above. HA graduates thought that General and Applied Administrative Theory and Health Care Organization had been the strongest parts of their curricula (at the time of enrollment). For PHA graduates the strongest areas had been Health Planning, General

Administrative Theory, Health Care Organization and Epidemiology. The two groups of graduates were in complete agreement as to the weakest areas of their curricula: Financial Management and, to a lesser degree, Personnel Administration. These findings, with a few minor exceptions, were similar to those of the Austin survey five years earlier.

Graduates also evaluated the quality of their skills preparation in a few selection curriculum topic areas. Financial Management was exlored in some depth revealing that from 50 to 80 percent of HA graduates, and 75 to 85 percent of PHA graduates felt that their preparation in nine important skill areas had ranged from fair through poor to non-existent.

Evaluation of skills preparation in Quantitative Methods indicated that some curriculum coverage in this area was almost universal for both HA and PHA programs, though it appeared to be more effective in teaching graduates how to identify problems amenable to quantitative analysis rather than to actually perform the more sophisticated quantitative and statistical techniques. Quality of the preparation was judged to be good or excellent by half the respondents, a much better rating than that achieved in the Financial Management area.

Skills traditionally associated with Personnel Administration--recruiting, grievance handling, etc.--were more often covered in HA than PHA programs, but even among the former group 20 percent said the listed skills had not been covered in their curricula, while an additional 45-50 percent judged their preparation as fair or poor.

Organization management skills showed considerable variability among the six skills listed but on the whole received the highest ratings of the four topic areas studied.

The role and perceived value of the residency or field placement was explored to some degree since it was an important element in the training of both HA and PHA graduates, and was generally traded off against academic time. Eighty-five percent of HA respondents and 60 percent of those from PHA programs had served a residency, typically 10 to 12 months for the former and 1 to 3 months for the latter. Forty percent of HA graduates thought the residency had been the most important part of their program, and an additional 40 percent considered it of equal importance to their academic work. PHA graduates were somewhat less enthusiastic: less than one-quarter rated it as the most important part of their program. For both groups, there were significant differences in evaluations according to the length of the residency period. Short residencies (less than 6 months) received lower evaluations, relative to academic work, than did long residencies. On the other hand, the length of the residency period did not have a significant affect on graduates' overall evaluation of their programs. Programs requiring long residencies were given the same quality ratings as were those with short residencies, or no residency at all. In this very limited respect, then, there was apparently a considerable degree of parity between the field and the classroom as sites for training.

Another important aspect of program effectiveness, the "bottom line" so to speak, is the ability of graduates to obtain satisfactory

jobs. Those who were surveyed here, the graduates of 1972 and 1974, reported few, if any, difficulties in this regard. Of the 1,000 respondents, three-quarters reported little or no difficulty finding good jobs immediately after graduation. This high proportion was stable for the two HA graduating classes, but for PHA graduates there was a suggestion that opportunities had tightened slightly between 1972 and 1974. There were no significant differences among individual programs in this regard. Although it might reasonably be theorized that programs vary as to quality, the market apparently provided first jobs to the graduates of all programs without gross discrimination. The study results also suggest that it may not be necessary for program faculty to devote excessive amounts of time to student placement, as at least some do. Graduates found their first jobs with relative ease quite independently of the amount of help offered by their faculty.

It was somewhat surprising to discover that two-thirds of the graduates had taken one, and often more, continuing education courses, mostly a week or less in duration, since graduating from their health care administration programs. Whether this activity represents an effort to fill gaps in graduates' educational preparation, or is accounted for by other factors such as professional requirements is an interesting question which certainly merits further study.

Documentation of the process by which programs review and evaluate their educational efforts was a matter of interest because of its implications for maintaining curriculum relevance. Ten

different sources of program review were identified and tracked as to frequency and impact on the process of curriculum evaluation and change. For HA programs, formal or informal review by program faculty, and program accreditation, were judged to have the greatest impact. Directors of PHA programs cited school accreditations and faculty or curriculum committees. Although student reviews of individual courses were almost universal, and students often had other opportunities for input, their impact was given a rather low ranking by most program directors.

Program faculty were described as playing the most dominant role in determining the contents of program curricula, though accreditation commissions and students, alumni and preceptors, in approximately that order, were judged to have some impact as well. Graduates who participated in the survey certainly conveyed the impression that communication lines between programs, students and alumni were open and active. Almost three-quarters of all respondents remembered their programs as having been moderately or very responsive to them when they were enrolled as students. After graduation, there were frequent opportunities for formal and informal contacts such as meetings, surveys, and continuing education courses. It appeared that there was, in fact, a very considerable amount of contact between faculty and alumni (mostly informal) which could, if desired, provide the basis for alumni inputs into program content, evaluation and overall design.

Program directors were close to unanimous in their view that one of the best ways to keep programs relevant and responsive to

changing professional needs was to have faculty actively involved in the "real" health world. They expressed a preference for applied research, but supervising student projects, consulting, community service, advisory committees, and teaching in continuing education programs were all considered of value by some respondents.

Looking ahead to the next five years, directors predicted that the curricula of their programs would be only moderately different. For HA programs the changes which had been made during the past five years, and those which were anticipated, seemed to suggest an almost constant process of small adjustments and modifications to a fairly stable basic curriculum. PHA programs, on the other hand, gave modest hints that they might be slowly moving off in a direction slightly different from that pursued in the past.

According to HA program directors, during the past five years curriculum emphasis in Financial Management and Quantitative Methods had been increased moderately or greatly in virtually all programs. More emphasis, though it was less universal and less intensive, had also been directed to Applied Administrative Theory, Health Care Organization, Comprehensive Health Planning, Information Systems/ Computers, Industrial Relations and Personnel Administration. Emphasis in all other topic areas had remained relatively unchanged or, in a few cases, had actually diminished. Changes in emphasis planned for the next three to five years included further large increases in Financial Management, and more moderate increases in a number of other areas including Interpersonal Skills, Government Relations, and Quantitative Methods.

PHA program directors described a very similar set of changes in curriculum emphasis. For the recent past, increased emphasis had most frequently been given to Financial Management, Quantitative Methods, Economics, Applied Administration and Government Relations. In the immediate future, Quantitative Methods and Health Law were scheduled for large increases in the curriculum of half of the programs, and seven other areas were to be increased moderately. Emphasis in Public Health Administration and Epidemiology had, and was to remain, unchanged.

The future curriculum plans of program directors were also compared with those which graduates considered desirable. One of the most striking elements in the comparison was the complete consensus expressed by HA and PHA graduates as to the five topic areas that should receive more emphasis. The items were identical, and arranged in the same rank order. Financial Management headed both lists by a considerable margin. Government Relations, Health Planning, Health Law and Information Systems followed. Financial Management was at the top of the list for both HA and PHA directors also, and they shared some, if not all, of their graduates' opinions on needs in other areas. The largest divergence in opinion between directors and graduates was in the area of Quantitative Methods where directors perceived a need for considerably more emphasis while graduates definitely did not.

Discussion

Although HA and PHA graduates were largely found in different

types of organizational settings, with somewhat different job responsibilities, they conveyed many common perceptions about their Master's level educations. In terms of the taxonomy developed for this study, the common core of both HA and PHA program curricula consisted of General and Applied Administrative Theory, and Health Care Organization. Curriculum emphasis in these areas was judged to be well-balanced with relevance to on-the-job needs, and graduates rated them as the strongest parts of their Masters' programs. Among a sample of seventeen programs in health/hospital administration, the three topic areas together accounted for 20 percent of the "average" curriculum.

There was some indication that the more practical knowledge and skills associated with Personnel Administration, Medical/Nursing Practice, and Information Systems/Computers were under-emphasized in the curriculum of both types of programs. As perceived by graduates three to five years into their professional careers, these areas had considerable job relevance which had not been matched by emphasis in their training programs. The most serious discrepancies between emphasis and relevance, however, were associated with Financial Management, Interpersonal Skills, and Quantitative Methods.

Financial Management emerged as perhaps the most important problem area for both HA and PHA graduates. Although rated of considerably higher relevance by the former than the latter, both cited it as the weakest part of their Master's level programs, and agreed that it should receive much greater emphasis in future. There was strong evidence to suggest that HA programs <u>had</u> increased the amount

of curriculum time in this topic area during the past three to five years, and intentions were to continue in that direction. The "average" HA program allocated almost 15 percent of total curriculum time to Financial Management, but there were wide variations in this allotment from program to program.[1] Many which remain below average need to augment their efforts and, judging from the frequency with which preparation was characterized as poor or fair, almost all could benefit from better teaching and/or improved teaching techniques.

PHA program directors who responded to the survey indicated an awareness of the need for more attention to financial management skills but few submitted evidence to suggest that such courses were being incorporated into the required core curriculum. On average, PHA graduates were working in smaller administrative units, and had more narrowly circumscribed managerial responsibilities than HA graduates, so their needs in the financial management area are probably less extensive. On the other hand, a significant minority (20 percent) of the PHA graduates who responded to this survey held high-level positions with substantial administrative authority and responsibility. PHA programs should recognize these needs, and modify or adapt their curricula accordingly.

Interpersonal Skills was a topic area rated of high relevance for the vast majority of respondents. It would appear that human

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[1]The data on adequacy of skills preparation indicated that four courses out of twenty in the typical four semester, 18 month curriculum, would not be at all excessive.

behavior, and its management in the organizational environment, is an extremely important component of the jobs held by both HA and PHA graduates, even more for the former than the latter. Little emphasis seemed to be placed on Interpersonal Skills in the academic portion of either HA or PHA curricula, nor did on-the-job experience via the residency appear to make a significant contribution. It may be that educators assume they can select for such skills in the course of the admissions process, and thereafter pay relatively little attention to the matter. It seems likely, however, that both students and programs would benefit if methods of student selection, and methods of developing and enhancing human behavior skills, were more carefully and explicitly considered by educators.

Quantitative Methods was perceived to be a topic area of rather low relevance by both groups of graduates. (For PHA graduates only, essentially the same paragraph could be written with regard to Epidemiology, except that emphasis has not been increasing.) It was ranked between 10 and 17 in 10 of the 11 organizational settings: only graduates working in consulting or research firms assigned it a higher rating. Yet both HA and PHA programs were seen as giving the topic area a good deal of emphasis, and the descriptive data on curriculum confirmed this view. In the "average" curriculum of seventeen HA programs, over 10 percent of classroom time was devoted to this topic area. Among PHA programs it was often one of the few required courses. Program directors indicated that Quantitative Methods was an area that had been given considerably more emphasis

during the past five years, and they anticipated a continuation of that trend into the immediate future. Here the problem was not so much quality--graduates' rated aspects of their preparation quite highly--as perceived lack of relevance. Do the low ratings mean that the quantitative skills usually taught in Master's level programs are truly of low relative importance to the professional lives of most graduates, or does it reflect failure to convey the knowledge in a way which graduates find meaningful and useful to their jobs. This is a question which should be resolved if curricula are to be made more relevant and responsive to professional needs.

APPENDIX A

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215-243-4752

Dear Colleague:

The Leonard Davis Institute of Health Economics is currently engaged in a study concerning the curriculum of health administration, public health administration and planning programs throughout the United States. The purpose of the research is to produce an in-depth report on the knowledge base of Master's programs in this field in order to improve future curriculum planning and development. (See inside back cover for more information.)

We need your help. As a recent graduate, you are uniquely qualified to comment on the content, relevance and general characteristics of the program you attended. Your job experience since graduation, and the way you now perceive your Master's program are matters of vital concern for future program planning. Your individual responses will, of course, be kept completely confidential.

Mindful of the many surveys that come across your desk, we have kept our questionnaire as brief as possible. You will need no more than 15 minutes to fill it out. A stamped, pre-addressed envelope is enclosed for your convenience.

Your opinion is important. We would like very much to have it.

Thank you.

Sincerely,

Sue Moyerman

Sue Moyerman
Principal Investigator

OMB #68-S74073, EXPIRES 07/31/77

SURVEY OF MASTER'S DEGREE GRADUATES IN HEALTH ADMINISTRATION — PUBLIC HEALTH ADMINISTRATION—HEALTH PLANNING

Directions: For each question, please use the space provided to check the appropriate responses or write in your answers. Your responses are strictly confidential (see last page). Please answer all questions.

A - BACKGROUND INFORMATION

Code Nos.

1. Year of birth: _____ [7-8]

2. Sex: (1) Male _____ (2) Female _____ [9]

3. Primary place of residence until age 18: _____ [10-11]
City State

4. Bachelor's degree obtained in _____ from _____ [12-13]
Year Full name of college/university

5. Undergraduate major: _____ [14-15]

6. Other graduate degrees held, excluding health-related Masters: [16-20]

___ Master's in _____ ___ M.D. _____ Other (specify):

___ Ph.D. in _____ ___ J.D. _____

7. Work experience prior to enrollment in health-related Master's program: [21-22]

a. In a health-related organization
(1) _____ None (3) _____ 2-4 years
(2) _____ 1 year or less (4) _____ 5 or more years

b. In a non-health related organization
(1) _____ None (3) _____ 2-4 years
(2) _____ 1 year or less (4) _____ 5 or more years

8. Present employment status (check all applicable): [23-26]

a. Employed in a health-related job or organization
(1) Full time _____ (2) Part time _____
b. Employed, but not in a health-related job or organization _____
c. Pursuing further graduate study _____
d. Not currently employed
(1) Looking for work __ (2) Not interested in work at present __

IMPORTANT! If you are not currently employed in a health-related job or organization either full or part time, please turn directly to page 8, fill out question #5A (the boxes on the left) and mail back the questionnaire.

B - EMPLOYMENT SETTING

1. Where is your present job located? _____ [27-28]
   City State

2. What is the approximate population of your city? [29]

   (1) _____ Less than 59,999
   (2) _____ 60,000-149,999
   (3) _____ 150,000-499,999
   (4) _____ 500,000-999,999
   (5) _____ 1 million or more

3. In what type of organization are you employed? Check the most appropriate category from either group A or group B. [30-31]

   A. Personal Medical Services
   (1) _____ Short-term hospital, general
   (2) _____ Short-term hospital, special. Type _____
   (3) _____ Long-term facility (e.g. nursing home)
   (4) _____ Ambulatory care center (clinic not providing inpatient services)
   (5) _____ Comprehensive care organization (e.g. HMO)
   (6) _____ Other personal service organization or institution. Please specify: _____

   B. Health Related Organizations and Agencies
   (1) _____ Public health agency (e.g. Health Department)
   (2) _____ Health planning agency (community, governmental, hospital)
   (3) _____ Consulting or research organization
   (4) _____ Medical school or other university
   (5) _____ Voluntary health agency (e.g. Heart Association)
   (6) _____ Administrative or regulatory agency (e.g. HEW, SSA)
   (7) _____ Other organization or agency. Please specify: _____

   _____

4. Ownership or sponsorship of your organization:

   (1) _____ Private, not-for-profit
   (2) _____ Private, for profit
   (3) _____ Federal, military
   (4) _____ Federal, non-military
   (5) _____ State government
   (6) _____ Regional, county or city government

   [32]

5. Setting in which the organization operates (check all applicable): [33-36]

   _____ Part of a comprehensive medical center
   _____ Part of or affiliated with a medical school
   _____ Branch or division of a larger firm or organization
   _____ Independent, free standing.

6. Approximately how many people are employed by this organization at this location? [37]

(1) _____ Less than 25
(2) _____ 25-40
(3) _____ 50-99
(4) _____ 100-299
(5) _____ 300-499
(6) _____ 500-699
(7) _____ 700-1,000
(8) _____ 1,000 or more

7. If this organization provides in-patient services, approximately how many beds are there? [38]

(1) _____ Less than 100
(2) _____ 100-299
(3) _____ 300-499
(4) _____ 500-699
(5) _____ 700-999
(6) _____ 1,000 or more

C - CHARACTERISTICS OF PRESENT POSITION

1. Your full title: _____ [39-40]

2. Is your position primarily a line supervisory position or an advisory staff position? [41]

(1) _____ Line
(2) _____ Staff
(3) _____ Both line and staff

3. Approximately how many people are employed in the administrative unit for which you are responsible? [42]

(1) _____ 1-4
(2) _____ 5-9
(3) _____ 10-19
(4) _____ 20-49
(5) _____ 50-99
(6) _____ 100 or more
(7) _____ Not responsible for an administrative unit

4. How many administrative levels are there above you in this organization, at this location? [43]

_____ None
_____ 1
_____ 2
_____ 3
_____ 4
_____ 5 or more

5. In what range does your present annual salary fall? [44]

(1) _____ Less than $10,000
(2) _____ $10,000-11,999
(3) _____ $12,000-14,999
(4) _____ $15,000-17,999
(5) _____ $18,000-20,999
(6) _____ $21,000-24,999
(7) _____ $25,000-34,999
(8) _____ $35,000 or more

6. Please give a brief description of your principal activities in this position (e.g., program evaluation, budget control) [45-47]

_____

_____

_____

7. In light of your experience since graduation, how would you rate your Master's program in preparing you for the following:

	Excellent (1)	Good (2)	Fair (3)	Poor (4)	Program Did Not Cover (5)	
Financial Management						
a. Develop an operating budget	☐	☐	☐	☐	☐	[48]
b. Monitor and control budget expenditures	☐	☐	☐	☐	☐	
c. Manipulate the budget, improve the budgeting system	☐	☐	☐	☐	☐	
d. Evaluate alternative capital investments & financing methods	☐	☐	☐	☐	☐	
e. Plan and control the capital budget	☐	☐	☐	☐	☐	
f. Interpret and use financial statements (balance sheets etc.)	☐	☐	☐	☐	☐	
g. Make use of reimbursement schemes to maximize revenues	☐	☐	☐	☐	☐	[54]
h. Forecast future revenues, operating & capital needs	☐	☐	☐	☐	☐	
i. Evaluate financial implications of new programs, mergers, etc.	☐	☐	☐	☐	☐	
Quantitative Methods						
j. Identify problems amenable to quantitative analysis	☐	☐	☐	☐	☐	
k. Use linear programming, modeling and other quantitative techniques in decision making	☐	☐	☐	☐	☐	
l. Measure productivity, efficiency, quality of services delivered	☐	☐	☐	☐	☐	
Personnel Administration						
m. Recruit, select and train new personnel	☐	☐	☐	☐	☐	[60]
n. Interpret and administer wage and salary policies	☐	☐	☐	☐	☐	
o. Manage grievance and discipline problems	☐	☐	☐	☐	☐	
p. Function within the context of a union contract	☐	☐	☐	☐	☐	
Organization Management and Design						
q. Motivate and direct subordinates	☐	☐	☐	☐	☐	
r. Improve intergroup & interdisciplinary planning, coordination	☐	☐	☐	☐	☐	
s. Evaluate performance of people	☐	☐	☐	☐	☐	
t. Manage conflict within the organization	☐	☐	☐	☐	☐	
u. Implement organizational change (goals, structure, etc.)	☐	☐	☐	☐	☐	
v. Assess current political and economic trends as they may affect the operation of your organization	☐	☐	☐	☐	☐	[69]

D - EXPERIENCE SINCE GRADUATION FROM MASTER'S PROGRAM

Card 2

1. What degree of difficulty did you experience in finding your first job after graduation (not necessarily the same as your present job)? [7]

(1) _____ No difficulty
(2) _____ Little difficulty
(3) _____ Moderate difficulty
(4) _____ Considerable difficulty

2. Approximately how many job interviews did you have? [8]

(1) _____ 0
(2) _____ 1-2
(3) _____ 3-4
(4) _____ 5-6
(5) _____ 7-9
(6) _____ 10 or more

3. How many job offers did you receive? [9]

_____ None
_____ 1
_____ 2
_____ 3
_____ 4
_____ 5 or more

4. Were any of the following helpful to you in seeking your first job? [10-12]

	(1) Very Helpful	(2) Moderately Helpful	(3) Minimally Helpful	(4) Of No Help
a. Program faculty	____	____	____	____
b. Program placement committee	____	____	____	____
c. School or university placement office	____	____	____	____

5. Did the job you obtained meet: [13-15]

	(1) Yes in Full	(2) In Large Part	(3) Moderately	(4) Not At All
a. Your original expectations?	____	____	____	____
b. Your preferences with respect to type of organization?	____	____	____	____
c. Your preferences with respect to level of responsibity?	____	____	____	____

6. What was your annual salary in this first position? [16]

(1) _____ Less than $10,000
(2) _____ $10,000-11,999
(3) _____ $12,000-14,999
(4) _____ $15,000-17,999
(5) _____ $18,000-20,999
(6) _____ $21,000-24,999
(7) _____ $25,000-34,999
(8) _____ $35,000 or more

7. Where was your first job located? _____ [17-18]
City State

8. Since graduation, [19-20]

a. How many organizations have you worked for?

_____ 1 _____ 2 _____ 3 _____ 4 or more

b. How many positions have you held?

_____ 1 _____ 2 _____ 3 _____ 4 _____ 5 or more

9.a. Since graduation, have you completed any courses or continuing education programs relating to your professional field? [21]

(1) _____ Yes (2) _____ No

b. If yes, please give short descriptive titles of courses taken, and their duration. [22-29]

_____

_____

_____

10.a. Are you considering leaving or changing your present position within the next six to twelve months? [30-31]

(1) _____ Yes (2) _____ No.

b. If yes, why are you considering a change? (Check only one.)

(1) ___ Job unsatisfactory (3) ___ To take better job (5) ___ Personal
(2) ___ Salary unsatisfactory (4) ___ Job terminated (6) ___ Other

E - EDUCATIONAL PROGRAM

Please relate the following questions to your graduate education in health administration, public health administration or planning as it was at the time you were enrolled in the program.

1. Did your program curriculum offer concentration areas or specialty tracks? [32]

(1) _____ Yes (2) _____ No

2. Did you specialize? (1) _____ Yes (2) _____ No (Skip to #4) [33]

3. What was your area of specialization or concentration? (Check all applicable.) [34-35]

(1) _____ Public Health Administration
(2) _____ Hospital Administration
(3) _____ Health Planning
(4) _____ Financial Management
(5) _____ Ambulatory Care
(6) _____ Long-Term Care
(7) _____ Mental Health
(8) _____ Other (Please specify)
_____

4. Did your graduate program require a residency, practicum or internship? [36-38]

(1) _____ Yes (2) _____ No (Skip to #5)

a. How long was it?

(1) _____ Less than 1 month
(2) _____ 1-3 months
(3) _____ 4-6 months
(4) _____ 7-9 months
(5) _____ 10-12 months

b. What is your overall evaluation of the field experience portion of your program?

(1) _____ Very valuable - the most important part of my program
(2) _____ Valuable - of equal importance to academic work
(3) _____ Of some value but less important than academic work
(4) _____ Of minimum value

5. For each of the subject areas listed below, please indicate by checking in the appropriate set of boxes:

	A. The degree to which each area was emphasized in your program's curriculum. (EMPHASIS)					B. The degree of relevance of each area to your present position. (RELEVANCE)				
	High (1)	Moderate (2)	Low (3)	None (4)	SUBJECT AREAS	High (1)	Moderate (2)	Low (3)	None (4)	
[39]					1. General Administrative & Organization Theory. General theories of work, leadership, organization design and structure.					[60]
					2. Applied Administrative & Organization Theory. Application of administrative theory to health service organizations.					
					3. Health Care Organization. The basic financial, organizational and delivery mechanisms for health care.					
					4. Medical/Nursing Practice. Medical concepts, terminology and treatment processes; roles of health personnel.					
					5. Public Health Administration. The role, organization and function of public health agencies.					
					6. Comprehensive Health Planning. Processes, techniques and issues in planning community health systems.					
[45]					7. Financial Management. Planning, implementation and control of accounting, budgeting and investment processes.					[66]
					8. Personnel Administration. Wage and salary administration, performance evaluation, staffing.					
					9. Industrial Relations. Concepts, implications and laws pertaining to labor organizations.					
					10. Interpersonal Skills. Human behavior in the organizational environment.					
					11. Information Systems/Computer Applications. Design and uses of information systems in health management and planning.					
					12. Quantitative Methods/Applied Statistics. Use of statistics, linear programming, queuing theory, etc. in decision making.					
[51]					13. Economics. Basic theories of micro- or macroeconomics.					[72]
					14. Research Methodology. Problem definition, research procedure and methods.					
					15. Health Law. Legal concepts and regulation in the health area.					
					16. Medical Sociology. Analysis of the social and cultural factors affecting health, illness and medical practice.					
					17. Epidemiology. Causation, distribution and control of disease in populations.					
[56]					18. Government Relations/Political Science. Federal, state and local governmental roles in health policy, delivery, financing and regulation.					[77]
[59]					19. Other (Please specify) a. _____ b. _____ c. _____					[80]

Card 3

6. Using the list of subject areas given on the opposite page, write the number (1-19) for:

   a. The ONE area you feel was strongest in your curriculum (i.e., the subject matter which made the greatest contribution to the total program). [7-8]

      Strongest: _____

   b. The ONE area in your curriculum you feel was most in need of improvement (i.e., the weakest). [9-10]

      Weakest: _____

7. The health care field is undergoing rapid changes. The demands on administration and planning graduates are apt to be quite different a few years from now. To meet these new demands, what three subject areas do you think should be given more emphasis, and what three should be reduced or eliminated in the curriculum for 1980-1982?

   Again, use the numbers indicating the subject areas from the list on the opposite page. If you wish, you may also write in topic areas which are not included on the list. [11-22]

More Emphasis	Less Emphasis
1. _____	1. _____
2. _____	2. _____
3. _____	3. _____

F - CURRICULUM EVALUATION AND CHANGE

1. Based on your experience since graduation, how would you rate the overall quality of your graduate education in health administration or planning? [23]

   (1) _____ Poor
   (2) _____ Fair
   (3) _____ Good
   (4) _____ Excellent

2. To what extent do you feel your graduate program was responsive to student inputs relative to improving the curriculum when you were enrolled? [24]

   (1) _____ Very responsive
   (2) _____ Moderately responsive
   (3) _____ Only slightly responsive
   (4) _____ Not responsive at all

3. Since graduation, which of the following opportunities have you had to offer inputs to your program with respect to curriculum objectives, evaluation, design, etc?

Type of Opportunity	Did you have the opportunity?		If yes, did you participate?		
	Yes	No	Yes	No	
a. Surveys by program or alumni	___	___	___	___	[25-26]
b. Special meetings (retreats, program reviews)	___	___	___	___	
c. Informal communication with program faculty	___	___	___	___	
d. Continuing education for alumni	___	___	___	___	[31-32]
e. Others (please specify)					
_____	___	___	___	___	
_____	___	___	___	___	

4. There is currently much interest in adding a specialty skill to the more general education of health administrators and planners. Based on your educational experience and the requirements of your present position:

a. Would you agree that an area of concentration or specialization should be required, along with the more general aspects of health administration? [33]

(1) _____ Strongly agree
(2) _____ Agree
(3) _____ Disagree
(4) _____ Strongly disagree
} (Skip to #5)

b. Given limited resources, what specialty areas should be offered? (Check as many as applicable) [34-46]

___ Financial Management
___ Planning
___ Personnel Administration
___ Health Law
___ Communications
___ Policy Analysis
___ Systems Analysis
___ Mental Health Administration
___ Ambulatory Care Administration
___ Long-Term Care Administration
___ Others (Please specify)

_____
_____
_____

5. Are there any comments you care to make concerning the ways in which health administration, public health and planning programs can improve the relevance and quality of their curricula?

_____

_____

_____

_____

Please return the completed questionnaire
in the enclosed envelope or mail to:

Masters' Program Survey - G8
Leonard Davis Institute of Health Economics
3641 Locust Walk
Philadelphia, Pa. 19104

THE LEONARD DAVIS INSTITUTE OF HEALTH ECONOMICS

The Leonard Davis Institute of Health Economics was founded in 1967 at the University of Pennsylvania to facilitate activities and programs of research and education in health services delivery. The Wharton School's M.B.A. Program in Health Care Administration is based within the Institute as are various continuing management education programs, post-doctoral programs and the research division. The Institute is also the administrative arm of the National Health Care Management Center, recently established at the University of Pennsylvania by the National Center for Health Services Research. The Management Center's focus is the improvement of management and organization in the health field, the training and retraining of administrators of health care organizations and the development of leaders, planners and policy analysts in the health field.

The questionnaire you have received is part of a research project funded by the Bureau of Health Resources Development. The results will be disseminated to educators as well as to the Bureau with the aim of maintaining and improving the quality of educational programs in this vital, rapidly evolving field.

STATEMENT ON CONFIDENTIALITY

We appreciate your answering all questions as fully and accurately as possible. Rest assured that your individual responses will be kept strictly confidential. The data are for statistical purposes only. All findings will be aggregated so that it will not be possible to identify any individual respondents. The questionnaires are numbered only to aid the project staff in making follow-up contact with non-respondents. The numbering code will be destroyed upon completion of the study.

LEONARD DAVIS INSTITUTE OF HEALTH ECONOMICS • UNIVERSITY OF PENNSYLVANIA
S. MOYERMAN/G8 • 3641 LOCUST WALK CE • PHILADELPHIA, PA. 19104

SURVEY OF MASTER'S LEVEL PROGRAMS IN HEALTH ADMINISTRATION - PUBLIC HEALTH ADMINISTRATION - HEALTH PLANNING

GENERAL INSTRUCTIONS

This questionnaire is divided into three parts as follows:

Part I - General Information (20 questions)
Part II - Curriculum Evaluation and Change (6 questions)
Part III - Curriculum Content (Forms I and II, separately attached)

The majority of questions in Parts I and III ask for routine administrative information which is readily accessible in the files of most programs. An administrative assistant can probably supply most of the answers. However, all of Part II and certain questions (or parts of questions) scattered through the other sections require the expression of opinions, judgements and forecasts of the future. These are to be answered by the Program Director. To facilitate identification, the questions have been marked with a double asterisk (**). It is anticipated that the Program Director will also review the questionnaire, when finished, for the accuracy and completeness of all responses.

The questionnaire is designed to capture complete descriptions of a wide range of Master's programs currently operating in the United States. It has been formulated in the most general terms possible, but not all local terminology or circumstances can be taken into account. One or more questions may present some difficulties because of factors unique to your program. In such cases, please try to answer in the spirit of the question, and note on the questionnaire the problem or special circumstance which qualifies your answer. If we have questions about particular responses, we will call you. Similarly, if you have problems deciding how to answer certain questions, feel free to call us, collect, at 215-243-6864.

The data which you submit will be used for general analytical purposes only. No individual programs will be identified. However, at your request, we will prepare a special report relating the profile of your program to the national results--a document which will be sent only to you. If you wish us to do this for your program, please check here. ☐

Specific Instructions:

1. The questionnaire applies only to Master's level programs, not to undergraduate or doctoral programs.
2. If there is more than one Master's level program in your department, each program director should complete a separate form. Additional forms are available on request.
3. Please follow all instructions carefully. Note that for most questions, the data to be provided are for the academic year just ended, i.e., 1976/77. However, a few questions seek to establish changes over time, and thus refer back to 1972 and/or 1974. In several instances the Program Director is asked to provide his/her best estimate of developments during the next 5-year period.
4. PLEASE BE SURE THAT THE PROGRAM DIRECTOR COMPLETES COLUMN [7] OF THE TWO CURRICULUM CONTENT FORMS (pages 9 and 10). THIS IS A VITAL PART OF THE DATA COLLECTION.
5. If additional space is required to answer any questions, or explain special circumstances, please attach the information on a separate sheet with the number of the part and the question clearly indicated.
6. Please complete all sections of the questionnaire as soon as possible and return them in the enclosed self-addressed, stamped envelope.

THANK YOU VERY MUCH FOR YOUR ASSISTANCE

PART I - GENERAL INFORMATION

UNLESS OTHERWISE NOTED, PLEASE ANSWER ALL QUESTIONS FOR THE ACADEMIC YEAR JUST PAST, i.e., 1976/77.

Card 1

1. What is the full title of your Master's degree program? _____

_____

2. What degree(s) do you award? _____ [4-8]

3. What academic schedule are you on?

(1) _____ Semester (3) _____ Quarter
(2) _____ Trimester (4) _____ Other. Specify _____ [9]

4. How many weeks, on the average, do your semesters, trimesters or quarters run? _____ Weeks [10-11]

5. How many classroom contact hours per week equal one credit hour or credit unit? _____ Weekly contact hours [12]

6. What is the minimum number of credit hours (or units) required for completing your Master's degree program? _____ Credit hours or units, minimum. [13-14]

7. How many hours or units in excess of the minimum do your students usually complete? _____ Credit hours [15-16]

8. How much time is required to complete the academic (on-campus) portion of your program on a full-time student basis? Please answer both a and b.

a. _____ Number of semesters, quarters, etc. [17]
b. _____ Number of months [18-19]

9. What is the total length of time (in months) required for completion of your program on a full-time student basis? _____ Months [20-21]

10. Are any specific undergraduate prerequisites or competencies required for admission to your program? (1) _____ Yes (2) _____ No [22]

If yes, please list the required subjects: [23-30]

a. _____ c. _____

b. _____ d. _____

11. What is the requirement, both past and projected, with regard to a residency or other full-time field placement.

	[31] 1972	[32] 1974	[33] 1978	[34] **1982
a. Status (Check appropriate response for each year)				
(1) Residency required	____	____	____	____
(2) Residency optional	____	____	____	____
(3) Neither optional nor required	____	____	____	____
b. Duration in months	____	____	____	____ [35-42]
c. Credit hours awarded	____	____	____	____ [43-46]

**Projections to be made by Program Director.

12. Is a thesis required for completion of your program?

(1) ____ Yes (2) ____ No [47]

If yes, how many credits are awarded for it? ____ [48]

13. Concentration or Specialization Areas

a. Are any concentration or specialization areas available to students in your program? (1) ____ Yes (2) ____ No - Skip to question 14. [49]

b. Please indicate in the left hand column below those specialization areas which are available. Check as many as are applicable. Then for those checked, indicate in the right hand column the number of course credits typically completed in the specialty area.

Check if Area Available to Students	Specialization Areas	Course Credits Typically Completed in Specialty Area	
_____	(1) Hospital Administration	_____	[50-51]
_____	(2) Long-Term Care Administration	_____	[52-53]
_____	(3) Mental Health Administration	_____	[54-55]
_____	(4) Ambulatory Care Administration	_____	[56-57]
_____	(5) Financial Management	_____	[58-59]
_____	(6) Health Planning	_____	[60-61]
_____	(7) Policy Analysis	_____	[62-63]
	Other (Please specify)		
_____	(8) _____	_____	[64-73]
_____	(9) _____	_____	
_____	(10) _____	_____	

14. When did your program first formally offer training in health planning (comprehensive, community or regional)? [74-75]

_____ Year _____ Never offered

15. Whether or not your program offers training in health planning, is it currently available elsewhere at your university?

(1) _____ No [76]
(2) _____ Yes. Please give name of department and school. _____

_____ [77]

16. Are there any other Master's level programs at your university, excluding your own, which offer training in some type of health care administration, e.g., health policy management?

(1) ___ No (2) ___ Yes. If yes, please give title and address of program(s).

_____ [78]

_____

_____

17. For the class which entered your program this past year, i.e., 1976/77, approximately what percentage had prior paid experience in the health care field? _____ percent

Card 2 [4-5]

18. For the class which just graduated, i.e., the class of 1977:

a. How many graduates were there? _____ [6-8]

b. How many were female? _____ [9-10]

c. How many took health planning as a concentration or specialization area? _____ [11-12]

19. With regard to the teaching faculty in your program:

a. How many have full-time appointments in the program? _____ [13-14]

b. How many have part-time appointments? _____ [15-16]
Of these, how many have their primary appointment elsewhere? _____ [17-18]

c. How many have adjunct faculty status? _____ [19-20]

20. Please enter, in the left-hand column below, your best estimate of the percent of recent program graduates (1976 and/or 1977) who went into each of the job settings listed. In the right-hand column, indicate how you personally assess opportunities for your graduates in each of these settings during the next 5-year period, i.e., 1977-1982.

Percent of Recent Graduates	Job-Setting	Opportunities in Next 5 Years** 1-Will Expand Greatly	2-Will Expand Moderately	3-Will Remain About Same	4-Will Contract	
[21-22] _____	Short-term hospital	____	____	____	____	[23]
[24-25] _____	Long-term care facility	____	____	____	____	[26]
[27-28] _____	Ambulatory care center	____	____	____	____	[29]
[30-31] _____	HMO	____	____	____	____	[32]
[33-34] _____	Public health agency	____	____	____	____	[35]
[36-37] _____	Health planning agency	____	____	____	____	[38]
[39-40] _____	Government regulatory or administrative agency	____	____	____	____	[41]
[42-43] _____	Consulting or research organization	____	____	____	____	[44]
[45-46] _____	Voluntary health agency	____	____	____	____	[47]
	Other. Please specify					
[48-49] _____	_____	____	____	____	____	[50]
[51-52] _____	_____	____	____	____	____	[53]
[54-55] _____	_____	____	____	____	____	[56]
100%	Total					

**Projections to be made by Program Director.

PART II - CURRICULUM EVALUATION AND CHANGE

THE QUESTIONS IN THIS SECTION ARE CONCERNED WITH THE WAYS IN WHICH PROGRAMS ASSESS THEIR PROGRESS AND MODIFY OR CHANGE THEIR CURRICULUM OVER TIME. THESE QUESTIONS SHOULD BE ANSWERED BY THE PROGRAM DIRECTOR.

1. Program review

a. Various types of program review are listed below. For those which are applicable to your program, indicate, in the spaces on the left, the frequency with which the review occurs, e.g., annually, every 5 years, etc. Then in the spaces on the right, rank all those applicable in terms of their relative impact in effecting evaluation and change in your program's curriculum. Rank all applicable against each other (in a single series), giving rank 1 to the review with the most impact.

Frequency of Occurrence	Types of Program Review	Rank 1 = Most Impact	
	Reviews required by:		
[57] _____	University	_____	[58]
[59] _____	Division or department	_____	[60]
[61] _____	Program	_____	[62]
[63] _____	School accreditations	_____	[64]
[65] _____	Program accreditations	_____	[66]
	Other types of review by:		
[67] _____	Program curriculum committee	_____	[68]
[69] _____	Preceptors, other practitioners	_____	[70]
[71] _____	Students in program	_____	[72]
[73] _____	Ad hoc advisory committees	_____	[74]
[75] _____	Program faculty	_____	[76]

b. Are there any other sources of review for your program, different from those listed above? (1) ___ No (2) ___ Yes. Please specify. [77]

1. _____ 3. _____ [78-80]

2. _____ 4. _____

2. For those applicable, please rank the following sources of input according to the relative impact of each on determination of the curriculum content of your program. Give Rank 1 to the source with the most impact. Card 3

Source of Input	Rank 1 = Most Impact	
Alumni of program.....	_____	[4]
Consumers of health services.....	_____	[5]
Full-time program faculty.....	_____	[6]
Part-time program faculty.....	_____	[7]
Preceptors, other practicing administrators.....	_____	[8]
Health professionals (doctors, nurses, etc.).....	_____	[9]
Students.....	_____	[10]
Directors, faculty of other programs.....	_____	[11]
Accreditation committees.....	_____	[12]
Professional educational consultants.....	_____	[13]

3. a. It is sometimes claimed that one of the best ways to keep program curricula responsive to changing professional needs is to have faculty actively participate in the "real" health world. Do you agree?

(1)___ Strongly agree (2) ___ Agree (3) ___ Disagree (4)___ Strongly Disagree [14]

b. How would you rank the usefulness of faculty participation in the following activities in this regard, i.e., keeping programs responsive.

Activities	Rank 1 = Most useful 7 = Least useful	
Consulting	_____	[15]
Supervising student projects	_____	[16]
Community service (as volunteers on boards, etc.)	_____	[17]
"Pure" research	_____	[18]
Applied research	_____	[19]
Continuing education programs (as faculty)	_____	[20]
Government advisory committees--nat'l, state, etc.	_____	[21]

4. In your opinion (and regardless of your answer to question 3), what are the most effective means for keeping curricula responsive to the changing needs of the profession?

_____

_____

_____

5. It is generally agreed that the health care field is undergoing rapid change. The demands on administration and planning graduates are apt to be quite different a few years from now. Looking ahead to 1980-82:

a. To what degree do you think your 1980/82 curriculum will differ from your present curriculum with respect to subject areas and emphasis?

(1) ____ Little or no differences (3) ____ Major differences [22]
(2) ____ Moderate differences (4) ____ Completely different

b. Do you anticipate adding any concentration areas or specialty tracks to your curriculum in the next three to five years?

(1) ____ Yes (2) ____ Undecided (3) ____ No [23]

If yes or undecided, please specify the areas you are considering.

(1) _____

(2) _____

(3) _____

(4) _____

c. Do you anticipate any significant changes in class size? [24]

(1) ____ No

(2) ____ Yes. If yes, please specify the direction and extent of the change, e.g., increase 30%_____ [25-27]

6. With regard to your program's curriculum, please indicate by checking in the appropriate set of boxes:

A. The degree to which emphasis in each subject area changed during the past three to five years.

B. The degree to which emphasis in each subject area will change in the curriculum for 1980-82.

PAST					FUTURE				
INCREASED GREATLY (1)	INCREASED MODERATELY (2)	UNCHANGED (3)	REDUCED (4)	SUBJECT AREAS	WILL INCREASE GREATLY (1)	WILL INCREASE MODERATELY (2)	WILL NOT CHANGE (3)	WILL BE REDUCED (4)	
				1. General Organization Theory. General theories of work, leadership, organization design, etc.					[46]
				2. Applied Organization Theory. Application of theory to health service organizations.					
				3. Health Care Organization. Basic financial, organizational and delivery mechanisms.					[48]
				4. Medical/Nursing Practice. Medical concepts, terminology and treatment processes; roles of health personnel.					
				5. Public Health Administration. Role, organization and function of public health agencies.					[50]
				6. Comprehensive Health Planning. Techniques, issues in planning community health systems.					
				7. Financial Management. Planning, control of accounting, budgeting and investment processes.					[52]
				8. Personnel Administration. Wage and salary admin., performance evaluation, staffing.					
				9. Industrial Relations. Concepts, implications, laws pertaining to labor organizations.					[54]
				10. Interpersonal Skills. Human behavior in the organizational environment.					
				11. Information Systems/Computer Applications. Design and uses of information systems.					[56]
				12. Quantitative Methods/Applied Statistics. Use of statistics, linear programming, queuing theory, etc. in decision making.					
				13. Economics. Basic theories of micro- or macroeconomics.					[58]
				14. Research Methodology. Problem definition, research procedure and methods.					
				15. Health Law. Legal concepts and regulations.					[60]
				16. Medical Sociology. Social & cultural factors affecting health, illness, medical practice.					
				17. Epidemiology. Causation, distribution and control of disease in populations.					[62]
				18. Government Relations/Political Science. Governmental role in health policy, delivery, finance and regulation.					

[28] [30] [32] [34] [36] [38] [40] [42] [44]

PART III - CURRICULUM CONTENTS

FORM I

INSTRUCTIONS

On this form, please describe the entire set of courses taken by the "generalist" (non-specialising) student who just graduated from your program. We recognize that not all such students took the same set of courses. We will interpret the data as indicating a likely or representative selection of courses for the typical generalist student. If students in your program usually specialize, then describe a representative curriculum for those who chose the most popular specialty area.

In Column [1] indicate, in the boxes at the top, which curriculum is being described. Then enter, on lines 1-24, brief descriptive titles for each course. Please list all courses except free electives, i.e., courses left to the complete discretion of the student (and often taken in some non-program-related area of interest).

In Column [2] list the appropriate course number as given in your school catalog or bulletin.

In Column [3] record the number of credit hours or units awarded for satisfactory completion of the course.

In Column [4] indicate whether the course is required by the school or by your program, or whether it is a recommended elective.

In Column [5] indicate the nature of the primary appointment of the faculty member teaching the course, i.e., in the program full time, in the program but part time, in some other school or department, or adjunct faculty.

In Column [6] indicate whether or not the majority of students most recently enrolled in the course were program students.

In Column [7] classify the courses according to the Taxonomy Code listed to the box to the right of Column 7. While it is likely that a course has material in more than one area, classify it according to your perception of the primary emphasis of the course. BE SURE YOU HAVE ASSIGNED A TAXONOMY CODE TO EACH COURSE. This is a critical part of the data collection.

In Column [8] indicate your perception of the degree to which each subject area was emphasized in your program's curriculum by checking the appropriate rating for each of the areas in the taxonomy.

On line 25 enter the number of credit hours or units falling into the category free electives (defined in # 2 above).

On line 26 record the credits awarded for the residency, thesis, or other activity not otherwise listed. The entry on line 27, i.e., the sum of all items in Column 3, should correspond to the number of credits typically completed by the graduating student.

[1] BRIEF DESCRIPTIVE TITLE OF COURSE For: ☐ The generalist student, Class of 1977 ☐ The student specializing in _____ _____, Class of 1977	[2] COURSE NUMBER	[3] CREDIT HOURS	[4] COURSE STATUS: REQUIRED BY SCHOOL (1)	REQUIRED BY PROGRAM (2)	RECOMMENDED ELECTIVE (3)	[5] PRIMARY APPOINTMENT: IN PROGRAM-FULL TIME (1)	IN PROGRAM-PART TIME (2)	IN OTHER DEPARTMENT (3)	ADJUNCT FACULTY (4)	[6] COURSE STUDENTS: MAJORITY IN PROGRAM (1)	MAJORITY NOT IN PROGRAM (2)	[7] TAXONOMY CODE**
1.												
2.												
3.												
4.												
5.												
6.												
7.												
8.												
9.												
10.												
11.												
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14.												
15.												
16.												
17.												
18.												
19.												
20.												
21.												
22.												
23.												
24.												
25. Free Electives - Credit hours												
26. Credits from other sources (Res, Thesis)												
27. Sum of Column 3 (= Total credits earned)												

**To be answered by Program Director

⇨

[8] EMPHASIS**

TAXONOMY CODE Subject Areas	High (1)	Moderate (2)	Low (3)	None (4)
1. General Organization Theory. General theories of work, leadership, organization design, etc.				
2. Applied Organization Theory. Application of theory to health service organizations.				
3. Health Care Organization. Basic financial, organizational and delivery mechanisms.				
4. Medical/Nursing Practice. Medical concepts, terminology and treatment processes; roles of health personnel.				
5. Public Health Administration. Role, organization and function of public health agencies.				
6. Comprehensive Health Planning. Techniques, issues in planning community health systems.				
7. Financial Management. Planning, control of accounting, budgeting and investment processes.				
8. Personnel Administration. Wage and salary admin., performance evaluation, staffing.				
9. Industrial Relations. Concepts, implications, laws pertaining to labor organizations.				
10. Interpersonal Skills. Human behavior in the organizational environment.				
11. Information Systems/Computer Applications. Design and uses of information systems.				
12. Quantitative Methods/Applied Statistics. Use of statistics, linear programming, queuing theory, etc. in decision making.				
13. Economics. Basic theories of micro- or macroeconomics.				
14. Research Methodology. Problem definition, research procedure and methods.				
15. Health Law. Legal concepts and regulations.				
16. Medical Sociology. Social & cultural factors affecting health, illness, medical practice.				
17. Epidemiology. Causation, distribution and control of disease in populations.				
18. Government Relations/Political Science. Governmental role in health policy, delivery, finance and regulation.				
19. None of the above (use only in extremis).				

Program: _____

Respondent: _____

Telephone: Area Code ( ) _____